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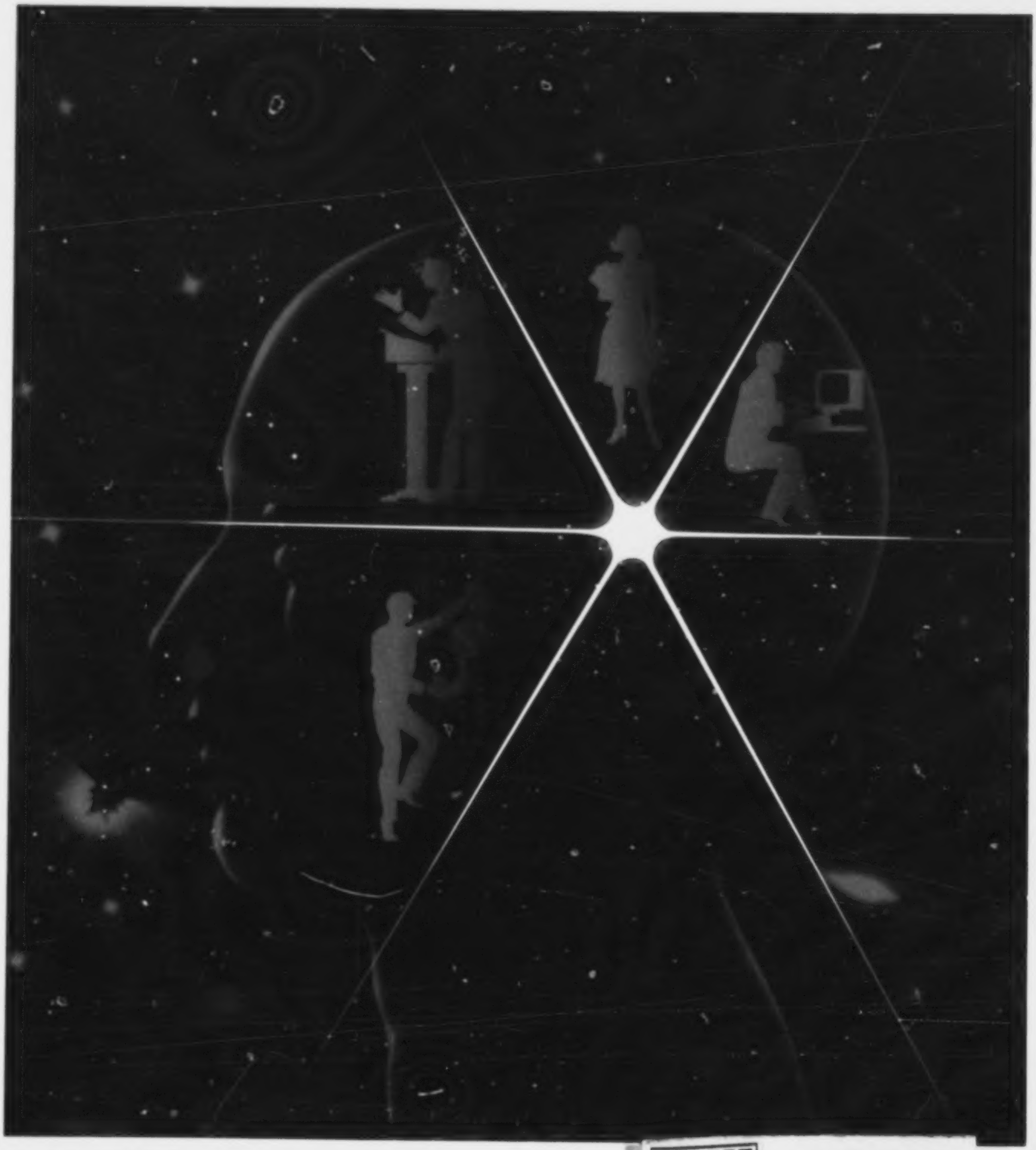
Dictionary of Occupational Titles

Volume I
Fourth Edition, Revised 1991

U.S. Department of Labor
Employment and Training Administration
1991



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Dictionary of Occupational Titles

Fourth Edition, Revised 1991

Volume I

U.S. Department of Labor
Lynn Martin, Secretary

Employment and Training Administration
Roberts T. Jones
Assistant Secretary of Labor

U.S. Employment Service
1991

MESSAGE FROM THE SECRETARY

Since its inception, the *Dictionary of Occupational Titles* (DOT) has provided basic occupational information to many and varied users in both public and private sectors of the United States economy. This revised Fourth Edition of the DOT appears at a time when there is growing recognition of the need for lifetime learning, when rapid technological change is making the jobs of current workers more complex than they were even a few years ago, and when timely and accurate labor market information is an increasingly important component of personal and corporate decision-making.

Publication of this document reaffirms in the clearest way the Department's continuing commitment to assist jobseekers, employers, educational and training institutions, researchers, and other interested parties with the most current and accurate occupational information possible. I hope that publication of this revised Fourth Edition will constitute a public service as timely and valuable as was publication of its predecessor volumes.

Lynn Martin

LYNN MARTIN
Secretary of Labor

PREFATORY NOTE

In the 14 years since the release of the Fourth Edition of the *Dictionary of Occupational Titles* (DOT), the American workplace has undergone revolutionary change. The skills most in demand are not what they were 14 years ago; educational requirements have steadily increased. Too many of America's young people are entering the world of work inadequately prepared. The resulting dislocation—the so-called "skills gap"—presents those of us who prepare, hire or support American workers with a serious challenge.

The revised Fourth Edition of the DOT is an important part of the Department of Labor's response. It provides an updated picture of the occupations for which America's workforce must be prepared. It details the tasks to be performed and the levels of education that must be achieved. The DOT offers a starting place from which to address issues of training and education, career guidance and employment counseling, job definition and wage restructuring.

We in ETA are pleased to present the revised Fourth Edition DOT. We hope that this update will make it an even more valuable reference for its substantial body of readers.

ROBERTS T. JONES
Assistant Secretary
for Employment and Training

FOREWORD

The *Dictionary of Occupational Titles* (DOT) has been, since 1939, a vital part of the USES commitment to collect and disseminate occupational data that is comprehensive, up-to-date, and economically useful. This revision of the Fourth Edition culminates a decade of research and verification by more than 40 job analysts at five Occupational Analysis centers across the Nation and reflects the changing skills, knowledges and abilities of the American workforce.

As was true of earlier versions, this revised Fourth Edition provides a wide range of occupational information with application to job placement, occupational research, career guidance, labor-market information, curriculum development and long-range job planning. Data from the 1982 and 1986 DOT Supplements and part of the data from *Selected Characteristics of Occupations Defined in the DOT* are included in and superseded by this revision.

The revision has enhanced information contained in the occupational definitions in response to user feedback. A number of new occupations have also been added that were originally identified by DOT users and given temporary codes and titles under the Occupational Code Request program. We thank previous users for these improvements. We hope that users of this revised Fourth Edition will continue to help us keep the DOT up to date.

Robert A. Schaerfl

ROBERT A. SCHAERFL
Director
U. S. Employment Service

ACKNOWLEDGEMENTS

The revised fourth edition of the *Dictionary of Occupational Titles* was produced by the U.S. Employment Service under the direction of Robert A. Schaerfl, Director. The Occupational Analysis Program was directed by Clay Cottrell, Chief, Division of Planning and Operations. Coordination and technical supervision of the data collection effort was directed by John Hawk, Personnel Research Psychologist, with additional technical planning and support from Russ Kile of the OA unit.

The new data for this edition were developed through the efforts of the following Occupational Analysis Field Centers, operated through the State Employment Services: Boston, Massachusetts, Paul Cleary, Supervisor; Detroit, Michigan, Tom Kearney, Supervisor; St. Louis, Missouri, Doris Phelan, Supervisor; Raleigh, North Carolina; and Salt Lake City, Utah, Barbara Smith, Supervisor. Grateful acknowledgement is also made for the contribution of Jerome Stevens, former Supervisor of the Missouri Field Center.

The North Carolina Occupational Analysis Field Center served a pivotal role in the planning, collection, preparation, and technical review of data for this revised edition, as well as its computerization and publication. Special recognition is due the staff of that center, including Mike Swaim, Bruce Paige, Larry Patterson, and Sammie Batchelor, and to their Supervisor, Stanley Rose.

Space does not permit a listing of their names, but grateful acknowledgement is also given to those associations, business firms, labor organizations, other Federal Agencies, and individuals whose assistance and cooperation contributed significantly to the development of this publication.

CONTENTS

VOLUME I

Page

Message from the Secretary iii
Prefatory Note v
Foreword vii
Acknowledgments ix
Special Notice xiii
Introduction xv

  Parts of the Occupational Definition xvii
  How to Find an Occupational Title and Code xxv

Occupational Categories, Divisions, and Groups xxix
Master Titles and Definitions 1
Term Titles and Definitions 3
Occupational Definitions

  Professional, Technical, and Managerial Occupations 13
  Clerical and Sales Occupations 171
  Service Occupations 239
  Agricultural, Fishery, Forestry, and Related Occupations 285
  Processing Occupations 307

VOLUME II

  Machine Trades Occupations 513
  Benchwork Occupations 683
  Structural Work 843
  Miscellaneous Occupations 917

Glossary 993
Appendixes

  Appendix A: Revisions from the 4th Edition DOT 1003
  Appendix B: Explanation of Data, People, and Things 1005
  Appendix C: Components of the Definition Trailer 1009
  Appendix D: How to Use the DOT for Job Placement 1015
  Appendix E: Occupational Code Requests 1019

Indexes

  Industry Index 1023
  Occupational Titles Arranged by Industry Designation 1027
  Alphabetical Index of Occupational Titles 1225

SPECIAL NOTICE

Occupational information contained in the revised fourth edition DOT reflects jobs as they have been found to occur, but they may not coincide in every respect with the content of jobs as performed in particular establishments or at certain localities. DOT users demanding specific job requirements should supplement this data with local information detailing jobs within their community.

In using the DOT, it should be noted that the U.S. Employment Service has no responsibility for establishing appropriate wage levels for workers in the United States, or settling jurisdictional matters in relation to different occupations. In preparing occupational definitions, no data were collected concerning these and related matters. Therefore, the occupational information in this edition cannot be regarded as determining standards for any aspect of the employer-employee relationship. Data contained in this publication should not be considered a judicial or legislative standard for wages, hours, or other contractual or bargaining elements.

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Comments or inquiries regarding definitions or data elements included in the revised fourth edition DOT are invited and should be addressed to:

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Telephone inquiries made be made by calling (919) 733-7917.

INTRODUCTION

The *Dictionary of Occupational Titles* (DOT) was developed in response to the demand of an expanding public employment service for standardized occupational information to support job placement activities. The U.S. Employment Service recognized this need in the mid-1930's, soon after the passage of the Wagner-Peyser Act established a Federal-State employment service system, and initiated an occupational research program, utilizing analysts located in numerous field offices throughout the country, to collect the information required. The use of this information has expanded from job matching applications to various uses for employment counseling, occupational and career guidance, and labor market information services.

In order to properly match jobs and workers, the public employment service system requires that a uniform occupational language be used in all of its local job service offices. Highly trained occupational analysts must go out and collect reliable data which is provided to job interviewers so they may systematically compare and match the specifications of employer job openings with the qualifications of applicants who are seeking jobs through its facilities. The Occupational Analysis (OA) Program is currently supporting job analysis activity in the states of Michigan, Missouri, Massachusetts, and Utah, with North Carolina serving as the lead Field Center providing leadership and oversight.

Based on the data collected by occupational analysts, the first edition of the DOT was published in 1939. The first edition contained approximately 17,500 concise definitions presented alphabetically, by title, with a coding arrangement for occupational classification. Blocks of jobs were assigned 5- or 6-digit codes which placed them in one of 550 occupational groups and indicated whether the jobs were skilled, semi-skilled, or unskilled.

The second edition DOT, issued in March 1949, combined material in the first edition with several supplements issued throughout the World War II period. The second edition and its supplements reflected the impact of the war on jobs in the U.S. economy including new occupations in the plastics, paper and pulp, and radio manufacturing industries.

The third edition DOT, issued in 1965, eliminated the previous designation of a portion of the occupations as "skilled, semi-skilled, or unskilled" and substituted a classification system based on the nature of the work performed and the demands of such work activities upon the workers. These new indicators of work requirements included eight separate classification components: training time, aptitudes, interests, temperaments, physical demands, working conditions, work performed, and industry.

The fourth edition of the DOT published in 1977, contained over 2,100 new occupational definitions and several thousand other definitions were substantially modified or combined with related definitions. In order to document these changes, approximately 75,000 on-site job analysis studies were conducted from 1965 to the mid-1970's. These studies, supplemented by information obtained through extensive contacts with professional and trade associations, reflected the restructuring of the economy at that time.

Two supplements to the DOT have been released since the publication of the 1977 fourth edition DOT, one in 1982 and one in 1986. The 1982 supplement contained titles, codes, and definitions derived from Occupational Code Requests (see Appendix E) submitted by DOT users to local Job Service offices. The 1986 supplement continued this effort to publish new definitions as well as modify existing definitions consistent with new data collected. The 1986 supplement contained 840 occupational definitions; of these, 761 were not defined in the fourth edition.

Changes in occupational content and job characteristics due to technological advancement continue to occur at a rapid pace. This rapid change to occupations coupled with user demand for the most current information possible has resulted in a revised approach to the publication of the DOT. The OA network has focused its efforts on the study of selected industries in order to document the jobs that have undergone the most significant occupational changes since the publication, in 1977, of the fourth edition DOT.

This effort of gathering data and writing/revising definitions in these selected industries, including ''new'' and revised definitions from the 1986 fourth edition supplement, has resulted in the publication of this revised fourth edition DOT. This information is presented in the hope that it will provide the best ''snapshot'' of how jobs continue to be performed in the majority of industries across the country. Comments, suggestions, or criticism by DOT users concerning the content and format of this revised DOT are welcomed.

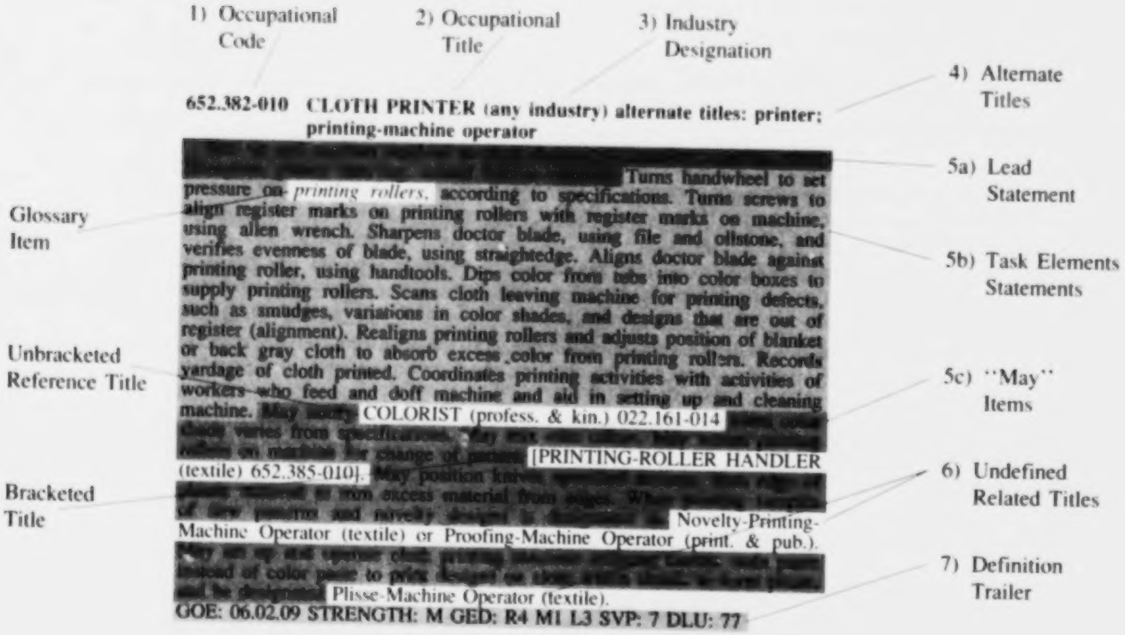
PARTS OF THE OCCUPATIONAL DEFINITION

Work is organized in a variety of ways. As a result of technological, economic, and sociological influences, nearly every job in the economy is performed slightly differently from any other job. Every job is also similar to a number of other jobs.

In order to look at the millions of jobs in the U.S. economy in an organized way, the DOT groups jobs into "occupations" based on their similarities and defines the structure and content of all listed occupations. Occupational definitions are the result of comprehensive studies of how similar jobs are performed in establishments across the nation and are composites of data collected from diverse sources. The term "occupation," as used in the DOT, refers to this collective description of a number of individual jobs performed, with minor variations, in many establishments.

There are seven basic parts to an occupational definition. They present data about a job in a systematic fashion. The parts are listed below in the order in which they appear in every definition:

(1) The Occupational Code Number
(2) The Occupational Title
(3) The Industry Designation
(4) Alternate Titles (if any)
(5) The Body of the Definition
  (a) Lead Statement
  (b) Task Element Statements
  (c) "May" Items
(6) Undefined Related Titles (if any)
(7) Definition Trailer



652.382-010 CLOTH PRINTER (any industry) alternate titles: printer; printing-machine operator

[illegible] Turns handwheel to set pressure on *printing rollers,* according to specifications. Turns screws to align register marks on printing rollers with register marks on machine, using allen wrench. Sharpens doctor blade, using file and oilstone, and verifies evenness of blade, using straightedge. Aligns doctor blade against printing roller, using handtools. Dips color from tubs into color boxes to supply printing rollers. Scans cloth leaving machine for printing defects, such as smudges, variations in color shades, and designs that are out of register (alignment). Realigns printing rollers and adjusts position of blanket or back gray cloth to absorb excess color from printing rollers. Records yardage of cloth printed. Coordinates printing activities with activities of workers who feed and doff machine and aid in setting up and cleaning machine. May notify COLORIST (profess. & kin.) 022.161-014 [illegible] shade varies from specifications. [illegible] rollers on machine for change of pattern [PRINTING-ROLLER HANDLER (textile) 652.385-010]. May position knives [illegible] trim excess material from edges. [illegible] of new patterns and novelty designs [illegible] Novelty-Printing-Machine Operator (textile) or Proofing-Machine Operator (print. & pub.). May set up and operate cloth [illegible] instead of color paste to print designs on [illegible] and be designated Plisse-Machine Operator (textile).
GOE: 06.02.09 STRENGTH: M GED: R4 M1 L3 SVP: 7 DLU: 77

(1) The Occupational Code Number

The first item in an occupational definition is the 9-digit occupational code (in the preceding example, 652.382-010). In the DOT occupational classification system, each set of three digits in the 9-digit code number has a specific purpose or meaning. Together, they provide a unique identification code for a particular occupation which differentiates it from all others.

The *first three digits* identify a particular occupational group. All occupations are clustered into one of nine broad "categories" (first digit), such as professional, technical and managerial, or clerical and sales occupations. These categories break down into 83 occupationally specific "divisions" (the first two digits), such as occupations in architecture and engineering within the professional category, or stenography, typing, and related occupations in the clerical and sales category. Divisions, in turn, are divided into small, homogeneous "groups" (the first three digits)—564 such groups are identified in the DOT. The nine primary occupational categories are listed below:

0/1	Professional, Technical, and Managerial Occupations
2	Clerical and Sales Occupations
3	Service Occupations
4	Agricultural, Fishery, Forestry, and Related Occupations
5	Processing Occupations
6	Machine Trades Occupations
7	Benchwork Occupations
8	Structural Work Occupations
9	Miscellaneous Occupations

In the example, the first digit (6) indicates that this particular occupation is found in the category, "Machine Trades Occupations." (For a listing of all occupational categories, divisions, and groups see page xxix.)

The second digit refers to a division within the category. The divisions within the "Machine Trades Occupations" category are as follows:

60	Metal Machining Occupations
61	Metalworking Occupations, n.e.c.
62/63	Mechanics and Machinery Repairers
64	Paperworking Occupations
65	Printing Occupations
66	Wood Machining Occupations
67	Occupations in Machining Stone, Clay, Glass, and Related Materials
68	Textile Occupations
69	Machine Trades Occupations, n.e.c.

Some divisions or groups end in the designation "n.e.c." (not elsewhere classified). This indicates that the occupations do not logically fit into precisely defined divisions or groups, or that they could fit into two or more of them equally well.

In the example, the second digit (5) locates the occupation in the "Printing Occupations" division.

The third digit defines the occupational group within the division. The groups within the "Printing Occupations" division are as follows:

650	Typesetters and Composers
651	Printing Press Occupations
652	Printing Machine Occupations
653	Bookbinding-Machine Operators and Related Occupations
654	Typecasters and Related Occupations
659	Printing Occupations, n.e.c.

In the example, the third digit (2) locates the occupation in the "Printing Machine Occupations" group.

The *middle three digits* of the DOT occupational code are the Worker Functions ratings of the tasks performed in the occupation. Every job requires a worker to function to some degree in relation to data, people, and things. A separate digit expresses the worker's relationship to each of these three groups:

DATA (4th Digit)	PEOPLE (5th Digit)	THINGS (6th Digit)
0 Synthesizing	0 Mentoring	0 Setting Up
1 Coordinating	1 Negotiating	1 Precision Working
2 Analyzing	2 Instructing	2 Operating-Controlling
3 Compiling	3 Supervising	3 Driving-Operating
4 Computing	4 Diverting	4 Manipulating
5 Copying	5 Persuading	5 Tending
6 Comparing	6 Speaking-Signalling	6 Feeding-Offbearing
	7 Serving	7 Handling
	8 Taking Instructions-Helping	

As a general rule, Worker Functions involving more complex responsibility and judgment are assigned lower numbers in these three lists while functions which are less complicated have higher numbers. For example, "synthesizing" and "coordinating" data are more complex tasks than "copying" data; "instructing" people involves a broader responsibility than "taking instructions-helping"; and "operating" things is a more complicated task than "handling" things.

The Worker Functions code in the example (382) relates to the middle three digits of the DOT occupational code and has a different meaning and no connection with group code 652 (first three digits).

The Worker Functions code (382) may be found in any occupational group. It signifies that the worker is "compiling" (3) in relation to data; "taking instructions-helping" (8) in relation to people; and "operating-controlling" (2) in relation to things. The Worker Functions code indicates the broadest level of responsibility or judgment required in relation to data, people, or things. It is assumed that, if the job requires it, the worker can generally perform any higher numbered function listed in each of the three categories. (See Appendix B for a more detailed discussion of Worker Functions codes.)

The *last three digits* of the occupational code number serve to differentiate a particular occupation from all others. A number of occupations may have the same first six digits, but no two can have the same nine digits. If a 6-digit code is applicable to only one occupational title, the final three digits assigned are always 010 (as in the example). If there is more than one occupation with the same first six digits, the final three digits are usually assigned in alphabetical order of titles in multiples of four (010, 014, 018, 022, etc.). If another printing machine occupation had the same six digits as CLOTH PRINTER (any industry) 652.382-010, and began with the letter "D," it would be assigned the occupational code 652.382-014. In order to minimize the number of changes made to the existing occupational classification structure, "new" occupations added to the DOT since the publication of the Fourth Edition have simply been added sequentially following the previous last entry for each of the 6-digit codes. The full nine digits thus provide each occupation with a unique code suitable for computerized operations.

(2) The Occupational Title

Immediately following the occupational code in every definition is the occupational base title. The base title is always in upper-case boldface letters. It is the most common type of title found in the DOT, and is the title by which the occupation is known in the majority of establishments in which it was found. In the example, CLOTH PRINTER (any industry) 652.382-010 is a base title.

(a) Master Titles

Some titles are classified as master titles. These titles are designed to eliminate unnecessary repetition of tasks common to a large number of occupations. Master titles define the common job tasks having a wide variety of job variables and wide variety of titles. An example is the title "SUPERVISOR (any industry)". Each individual supervisory occupation has its own separate definition in the DOT describing its unique duties, but at the end of the definition the reader is referred to the master definition; in this case by a sentence reading: "Performs other duties as described under SUPERVISOR (any industry) Master Title". By referring to this master definition, the user will learn about the typical supervisory duties which are commonly performed.

(b) Term Titles

Another type of DOT title is a term title. These include occupations with the same title but few common duties. An example of a term definition is:

> CONSULTING ENGINEER (profess. & kin.): A term applied to workers who consult with and advise clients on specialized engineering matters in a particular field of endeavor, such as chemical engineering, civil engineering, or mechanical engineering.

Since neither master nor term definitions are occupations, they are not coded in the Occupational Group Arrangement but are found in separate sections of the DOT (see Contents).

There are other major types of titles used in the DOT, including *alternate titles* and *undefined related titles*. These are discussed later in this section.

(3) Industry Designation

The industry designation is in parentheses immediately following the occupational base title. It often differentiates between two or more occupations with identical titles but different duties. Because of this, it is an integral and inseparable part of any occupational title. An industry designation often tells one or more things about an occupation such as:

- location of the occupation (hotel & rest.; machine shop)
- types of duties associated with the occupation (education; forging)
- products manufactured (optical goods; textile)
- processes used (electroplating; petrol. refin.)
- raw materials used (nonfer. metal; stonework)

While a definition usually receives the designation of the industry or industries in which it occurs, certain occupations occur in a large number of industries. When this happens, the industry assigned is a cross-industry designation. For example, clerical occupations are found in almost every industry. To show the broad, cross-industry nature of clerical occupations, "clerical" is an industry designation in itself. Among other cross-industry designations are: "profess. & kin.", "machine shop", and "woodworking".

Occupations which characteristically occur in nearly all industries, or which occur in a number of industries, but not in most industries and which are not considered to have any particular industrial attachment, are assigned the designation of "any industry." The job title in the example is assigned this designation. It should always be identified as CLOTH PRINTER (any industry) 652.382-010.

In compiling information for the DOT, analysts were not able to study each occupation in all industries where it occurs. The industry designation, therefore, shows in what industries the occupation was studied but does not mean that it may not be found in others. Therefore, industry designations are to be regarded as indicative of industrial location, but not necessarily restrictive.

(4) Alternate Titles

An alternate title is a synonym for the base title. It is not as commonly used as the base title. Alternate titles are shown in lower-case letters immediately after the base title and its industrial designation. In the example, two alternate titles are given: "printer" and "printing-machine operator". Alternate titles may not be used by public employment service offices in assigning occupational classifications. Alternate titles are cross-referenced to their base titles in the Alphabetical Index of Occupational Titles (p. 1185). A particular occupation may have a large number of alternate titles or none at all. Alternate titles carry the code numbers and industry designations of the base title.

(5) The Body of the Definition

The body of the definition usually consists of two or three main parts: a lead statement, a number of task element statements, and a third part known as a "may" item.

(a) The Lead Statement

The first sentence following the industry designation and alternate titles (if any) is the lead statement. It is followed by a colon (:). The lead statement summarizes the entire occupation. It offers essential information such as:

—worker actions
—objective or purpose of the worker actions
—machines, tools, equipment, or work aids used by the worker
—materials used, products made, subject matter dealt with, or services rendered
—instructions followed or judgments made

In the example, the sentence "Sets up and operates machine to print designs on materials, such as cloth, fiberglass, plastics sheeting, coated felt, or oilcloth:" is the lead statement. From it, the user can obtain an overview of the occupation.

(b) Task Element Statements

Task element statements indicate the specific tasks the worker performs to accomplish the overall job purpose described in the lead statement. The sentences in the example beginning with "Turns handwheel . . . ", "Turns screws . . . ", "Sharpens doctor . . . ", "Aligns doctor . . . ", "Dips color . . . ", etc. are all task element statements. They indicate how the worker actually carries out the job duties.

(c) "May" Items

Many definitions contain one or more sentences beginning with the word "May". They describe duties required of workers in this occupation in some establishments but not in others. The word "May" does not indicate that a worker will sometimes perform this task but rather that some workers in different establishments generally perform one of the varied tasks listed. In the example, the three sentences beginning "May notify. . .", "May mount. . .", "May position. . .", are "May" items. Do not confuse "May" items with the "May be designated. . ." sentence which introduces undefined related titles.

The definition also contains a number of additional information elements designed to assist the user. Among these elements are:

Italicized words: Any word in a definition shown in italics is defined in the "Glossary" (p. 947). Italicized words are technical or special uses of words not ordinarily found in a dictionary. In the example, the words "printing rollers" are italicized. Their precise meaning can be found in the "Glossary".

Bracketed titles: A bracketed title indicates that the worker in the base title occupation performs some duties of the bracketed occupation as a part of the worker's regular duties. In the example, the CLOTH PRINTER (any industry) 652.382-010 "May mount printing rollers. . ." Since this task is usually performed by a PRINTING-ROLLER HANDLER (textile) 652.385-010, this occupation is bracketed. To learn more about this particular aspect of the occupation, the user can read the definition of the bracketed occupational title.

Unbracketed titles: Unbracketed titles are used for occupations that have a frequent working relationship with the occupation defined. In the example, the CLOTH PRINTER (any industry) 652.382-010 has a close working relationship with a COLORIST (profess. & kin.) 022.161-014. This unbracketed title is therefore included in the definition.

Roman numerals: Several somewhat different occupations with the same job title may be found in the same industry. In this event, a Roman numeral follows each title. For example, there are two titles in the DOT listed as ASSEMBLER (ordnance). In order to distinguish between them, a Roman numeral is assigned to each one: ASSEMBLER (ordnance) I 736.381-010 and ASSEMBLER (ordnance) II 736.684-014. There is no connection in the sequence of these numbers with the level of complexity of these occupations or the frequency with which they occur in the U.S. economy.

Statement of significant variables: Another element found in some definitions is a statement of significant variables. It appears near the end of a definition and indicates possible variations that can occur in jobs. This eliminates the need to include a large number of almost identical definitions in the DOT. The statement begins with "Important variations include. . .". There is no statement of significant variables in the definition of CLOTH PRINTER (any industry) 652.382-010.

(6) Undefined Related Titles

Undefined related titles, when applicable, appear at the end of the occupational definition, with initial capital letters, preceded by a phrase, such as "May be designated according to. . .". In the example, three undefined related titles are given: Novelty-Printing-Machine-Operator (textile), Proofing-Machine Operator (print. & pub.), and Plisse-Machine Operator (textile). This type of title indicates a variation or specialization of the base occupation. It resembles the base enough to accompany it, but differs from it enough to require an explanatory phrase and its own unique title. An undefined related title has the same code as its base title. Undefined related titles found in occupational definitions are listed in the Alphabetical Index of Occupational Titles in initial capital letters. The entry includes the industry designation and the 9-digit code of the corresponding base title. In addition, undefined related titles appear in alphabetical order with their nine-digit code under their appropriate industry in the list of Occupational Titles Arranged by Industry Designation.

(7) Definition Trailer

Selected characteristics and auxiliary profile data are contained in a "trailer" appended to each definition. The trailer contains the following selected occupational analysis characteristics: GOE Code; Strength rating; R, M, and L of GED; and SVP. (Refer to Appendix C for a detailed explanation of these characteristics.)

The Date of Last Update (DLU), the last item in the trailer, is the date of the most recent material gathered in support of that occupation. The date "1977" indicates that the job has not been studied since the publication of the Fourth Edition DOT in 1977 (See page 947, Appendix A.) This entry allows the reader to identify the currency of each definition. It will also provide easy identification of definitions "new" to the DOT or alert the reader to previously published and recently updated definitions.

HOW TO FIND AN OCCUPATIONAL TITLE AND CODE

Occupational titles and codes in the *Dictionary of Occupational Titles* (DOT) are based on the type of information presented in the lead statement and task element statements described in the previous section: worker actions; the purpose or objective of these actions; machines, tools, equipment, or work aids used; materials processed, products made, subject matter dealt with, or service rendered; the nature and complexity of instructions followed; and the job tasks actually performed by the worker. The more complete and comprehensive the information you are able to assemble about the tasks performed by a worker or required by an employer on a particular job, the easier it will be to determine the appropriate classification.

The Three Occupational Arrangements

There are three different arrangements of occupational titles in the DOT: the Occupational Group Arrangement, the Alphabetical Index, and the Industry Arrangement. All of these can assist you in identifying and classifying jobs.

(1) The Occupational Group Arrangement

> In this revised edition, as in the fourth edition, the primary method of identifying or classifying jobs is by use of the Occupational Group Arrangement (pp. 13 - 946). For job placement and referral purposes, if you have obtained sufficient information from the worker seeking a job, or the employer placing an order, this is the preferred method to use. The other two arrangements of titles are supplementary and should be used in conjunction with the Occupational Group Arrangement. Using the Occupational Group Arrangement saves time by eliminating the extra step of referring to other sections of the DOT.
>
> To use the Occupational Group Arrangement:
>
> (a) Obtain all the relevant facts about the job.
> (b) Find the 1-digit occupational category which seems most likely to contain the job.
> (c) Find the most appropriate 2-digit occupational division of the category.
> (d) Find the best 3-digit group within the division.
> (e) Examine the occupational definition under the group you have selected and choose the most appropriate title. *Read the definition for the title selected carefully before deciding if this is the best possible classification. If it does not correspond closely with the information you have collected, repeat steps (b) to (d) to find the most appropriate classification.*

In the process of choosing the appropriate occupational category, division, and group (steps b - d) you will develop information about the job which will be helpful in classifying it. When you are trying to find the most appropriate definition in the occupational group selected (step e), remember that jobs requiring more responsibility and independent judgment have lower worker functions numerals and will be found near the beginning of the occupational group, while those requiring less responsibility and independent judgment have higher numbers and will be found nearer the end.

(2) The Alphabetical Index of Occupational Titles

> The Alphabetical Index is the second basic arrangement of codes and titles in the DOT. In this section, titles are shown first, including their industry designation. Titles with two or more words, such as ACCOUNT-CLASSIFICATION CLERK (clerical), are treated as one word for purposes of alphabetizing. Following the industry designation, you will find the 9-digit code for the occupation. This will help to find quickly the title and its definition in the Occupational Group Arrangement (OGA). The Alphabetical Index is useful if you are sure of an occupational title, including its industry designation,

and just need the 9-digit code, or if you are reasonably sure of a title and its industry designation, but there is more than one such title in the same industry (indicated by a Roman numeral), you could use this index to get the 9-digit codes of the various titles in order to locate and check out their definitions in the OGA. Although it is unwise to classify a job or application based on its title alone, the Alphabetical Index is useful in some situations to identify definitions that are possibly relevant.

To use the Alphabetical Index:

(a) Look through the index for the title of the job as you know it. If you find it, write down the 9-digit code printed to the right of the title. Using this code as a guide, find the definition for the title in the Occupational Group Arrangement. *Read the entire definition before deciding whether it is the most appropriate classification.*

(b) If you cannot find the job title, or if the definition appears inappropriate, look for another title. Some clues are:

Invert the title: maintenance carpenter
CARPENTER, MAINTENANCE

Contract the title: rubber-belt repairer
BELT REPAIRER

Find a synonym: car mechanic
AUTOMOBILE MECHANIC

Consider such factors as:

- *Job location*
  PARKING LOT ATTENDANT; STOREROOM CLERK
- *Machines used*
  PUNCH-PRESS OPERATOR; MACHINE FEEDER
- *Materials used*
  LOG LOADER; PLASTIC-TILE LAYER
- *Subject matter*
  ACCOUNTING CLERK, CREDIT ANALYST
- *Services involved*
  CLEANER AND PRESSER; BROKER
- *Activity performed*
  TEACHER; INSPECTOR
- *Job complexity*
  MACHINE SETTER; WELDING-MACHINE TENDER

If you have information on several of these factors, however, it may be more appropriate to use the Occupational Group Arrangement.

Some titles listed in the Alphabetical Index are not used in public employment service operations. "Master" and "Term" titles do not have occupational codes and consequently cannot be used. They are easily recognized since the words "Master Title" or "Term Title" appear in place of the code to the right of the title. Alternate titles, which are synonyms for, but less commonly used than base titles, are not standard titles for classification purposes in Job Service operations. They are also easily recognizable since they are in lower-case letters.

(3) Occupational Titles Arranged by Industry Designation

The Industry Arrangement of titles (pp. 981-1184) may be useful if you have limited information about a job. You may know the industry in which the job is located, but have little or no information about such things as products made, materials used, services rendered, and other essential data. The Industry Arrangement can also be of assistance if a person wants to work in a particular industry, or if you need to learn more about related jobs in the industry.

To use the Industry Arrangement:

(a) Look through the industry titles and read their definitions. Select the one most likely to contain the particular job.
(b) Survey the occupational titles listed under the selected industry. Choose the title which seems appropriate to the job, and write down the nine-digit code to the right of the title. Using this code as a guide, find the definition in the Occupational Group Arrangement. *Read the entire occupational definition before deciding if it is the most appropriate classification.*

Summary

The basic purpose and use of each of the three arrangements of occupational titles is shown below:

Use . . .	If you . . .
THE	have sufficient information about the job tasks
OCCUPATIONAL	want to know about other closely related occupations
GROUP ARRANGEMENT	want to be sure you have chosen the most appropriate classification using the other arrangements
OCCUPATIONAL TITLES	know only the industry in which the job is located
ARRANGED BY	want to know about other jobs in an industry
INDUSTRY DESIGNATION	your client wants to work in a specific industry
THE	know only the job title and cannot obtain better information
ALPHABETICAL INDEX OF	
OCCUPATIONAL TITLES	

OCCUPATIONAL CATEGORIES, DIVISIONS, AND GROUPS

ONE-DIGIT OCCUPATIONAL CATEGORIES

0/1 PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS
2 CLERICAL AND SALES OCCUPATIONS
3 SERVICE OCCUPATIONS
4 AGRICULTURAL, FISHERY, FORESTRY, AND RELATED OCCUPATIONS
5 PROCESSING OCCUPATIONS
6 MACHINE TRADES OCCUPATIONS
7 BENCHWORK OCCUPATIONS
8 STRUCTURAL WORK OCCUPATIONS
9 MISCELLANEOUS OCCUPATIONS

TWO-DIGIT OCCUPATIONAL DIVISIONS

0/1 PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS
00/01 OCCUPATIONS IN ARCHITECTURE, ENGINEERING, AND SURVEYING
02 OCCUPATIONS IN MATHEMATICS AND PHYSICAL SCIENCES
03 COMPUTER-RELATED OCCUPATIONS
04 OCCUPATIONS IN LIFE SCIENCES
05 OCCUPATIONS IN SOCIAL SCIENCES
07 OCCUPATIONS IN MEDICINE AND HEALTH
09 OCCUPATIONS IN EDUCATION
10 OCCUPATIONS IN MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES
11 OCCUPATIONS IN LAW AND JURISPRUDENCE
12 OCCUPATIONS IN RELIGION AND THEOLOGY
13 OCCUPATIONS IN WRITING
14 OCCUPATIONS IN ART
15 OCCUPATIONS IN ENTERTAINMENT AND RECREATION
16 OCCUPATIONS IN ADMINISTRATIVE SPECIALIZATIONS
18 MANAGERS AND OFFICIALS, N.E.C.
19 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS

2 CLERICAL AND SALES OCCUPATIONS
20 STENOGRAPHY, TYPING, FILING, AND RELATED OCCUPATIONS
21 COMPUTING AND ACCOUNT-RECORDING OCCUPATIONS
22 PRODUCTION AND STOCK CLERKS AND RELATED OCCUPATIONS
23 INFORMATION AND MESSAGE DISTRIBUTION OCCUPATIONS
24 MISCELLANEOUS CLERICAL OCCUPATIONS
25 SALES OCCUPATIONS, SERVICES
26 SALES OCCUPATIONS, CONSUMABLE COMMODITIES
27 SALES OCCUPATIONS, COMMODITIES, N.E.C.
29 MISCELLANEOUS SALES OCCUPATIONS

3 SERVICE OCCUPATIONS
30 DOMESTIC SERVICE OCCUPATIONS
31 FOOD AND BEVERAGE PREPARATION AND SERVICE OCCUPATIONS
32 LODGING AND RELATED SERVICE OCCUPATIONS
33 BARBERING, COSMETOLOGY, AND RELATED SERVICE OCCUPATIONS
34 AMUSEMENT AND RECREATION SERVICE OCCUPATIONS
35 MISCELLANEOUS PERSONAL SERVICE OCCUPATIONS
36 APPAREL AND FURNISHINGS SERVICE OCCUPATIONS
37 PROTECTIVE SERVICE OCCUPATIONS
38 BUILDING AND RELATED SERVICE OCCUPATIONS

4 AGRICULTURAL, FISHERY, FORESTRY, AND RELATED OCCUPATIONS
40 PLANT FARMING OCCUPATIONS
41 ANIMAL FARMING OCCUPATIONS
42 MISCELLANEOUS AGRICULTURAL AND RELATED OCCUPATIONS
44 FISHERY AND RELATED OCCUPATIONS
45 FORESTRY OCCUPATIONS
46 HUNTING, TRAPPING, AND RELATED OCCUPATIONS

5 PROCESSING OCCUPATIONS
50 OCCUPATIONS IN PROCESSING OF METAL
51 ORE REFINING AND FOUNDRY OCCUPATIONS
52 OCCUPATIONS IN PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS
53 OCCUPATIONS IN PROCESSING OF PAPER AND RELATED MATERIALS
54 OCCUPATIONS IN PROCESSING OF PETROLEUM, COAL, NATURAL AND MANUFACTURED GAS, AND RELATED PRODUCTS
55 OCCUPATIONS IN PROCESSING OF CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, AND RELATED PRODUCTS
56 OCCUPATIONS IN PROCESSING OF WOOD AND WOOD PRODUCTS
57 OCCUPATIONS IN PROCESSING OF STONE, CLAY, GLASS, AND RELATED PRODUCTS
58 OCCUPATIONS IN PROCESSING OF LEATHER, TEXTILES, AND RELATED PRODUCTS
59 PROCESSING OCCUPATIONS, N.E.C.

6 MACHINE TRADES OCCUPATIONS
60 METAL MACHINING OCCUPATIONS
61 METALWORKING OCCUPATIONS, N.E.C.
62/63 MECHANICS AND MACHINERY REPAIRERS
64 PAPERWORKING OCCUPATIONS
65 PRINTING OCCUPATIONS
66 WOOD MACHINING OCCUPATIONS
67 OCCUPATIONS IN MACHINING STONE, CLAY, GLASS, AND RELATED MATERIALS
68 TEXTILE OCCUPATIONS
69 MACHINE TRADES OCCUPATIONS, N.E.C.

7 BENCHWORK OCCUPATIONS
70 OCCUPATIONS IN FABRICATION, ASSEMBLY, AND REPAIR OF METAL PRODUCTS, N.E.C.
71 OCCUPATIONS IN FABRICATION AND REPAIR OF SCIENTIFIC, MEDICAL, PHOTOGRAPHIC, OPTICAL, HOROLOGICAL, AND RELATED PRODUCTS
72 OCCUPATIONS IN ASSEMBLY AND REPAIR OF ELECTRICAL EQUIPMENT
73 OCCUPATIONS IN FABRICATION AND REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS
74 PAINTING, DECORATING, AND RELATED OCCUPATIONS
75 OCCUPATIONS IN FABRICATION AND REPAIR OF PLASTICS, SYNTHETICS, RUBBER, AND RELATED PRODUCTS
76 OCCUPATIONS IN FABRICATION AND REPAIR OF WOOD PRODUCTS
77 OCCUPATIONS IN FABRICATION AND REPAIR OF SAND, STONE, CLAY, AND GLASS PRODUCTS
78 OCCUPATIONS IN FABRICATION AND REPAIR OF TEXTILE, LEATHER, AND RELATED PRODUCTS
79 BENCHWORK OCCUPATIONS, N.E.C.

8 STRUCTURAL WORK OCCUPATIONS
80 OCCUPATIONS IN METAL FABRICATING, N.E.C.
81 WELDERS, CUTTERS, AND RELATED OCCUPATIONS
82 ELECTRICAL ASSEMBLING, INSTALLING, AND REPAIRING OCCUPATIONS
84 PAINTING, PLASTERING, WATERPROOFING, CEMENTING, AND RELATED OCCUPATIONS
85 EXCAVATING, GRADING, PAVING, AND RELATED OCCUPATIONS
86 CONSTRUCTION OCCUPATIONS, N.E.C.
89 STRUCTURAL WORK OCCUPATIONS, N.E.C.

9 MISCELLANEOUS OCCUPATIONS
90 MOTOR FREIGHT OCCUPATIONS
91 TRANSPORTATION OCCUPATIONS, N.E.C.
92 PACKAGING AND MATERIALS HANDLING OCCUP
93 OCCUPATIONS IN EXTRACTION OF MINERALS
95 OCCUPATIONS IN PRODUCTION AND DISTRIBUTIO UTILITIES
96 AMUSEMENT, RECREATION, MOTION PICTURE, RA TELEVISION OCCUPATIONS, N.E.C.
97 OCCUPATIONS IN GRAPHIC ART WORK

THREE-DIGIT OCCUPATIONAL GROUPS

PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS

00/01 OCCUPATIONS IN ARCHITECTURE, ENGINEERING, AND SURVEYING
001 ARCHITECTURAL OCCUPATIONS
002 AERONAUTICAL ENGINEERING OCCUPATIONS
003 ELECTRICAL/ELECTRONICS ENGINEERING OCCUPATIONS
005 CIVIL ENGINEERING OCCUPATIONS
006 CERAMIC ENGINEERING OCCUPATIONS
007 MECHANICAL ENGINEERING OCCUPATIONS
008 CHEMICAL ENGINEERING OCCUPATIONS
010 MINING AND PETROLEUM ENGINEERING OCCUPATIONS
011 METALLURGY AND METALLURGICAL ENGINEERING OCCUPATIONS
012 INDUSTRIAL ENGINEERING OCCUPATIONS
013 AGRICULTURAL ENGINEERING OCCUPATIONS
014 MARINE ENGINEERING OCCUPATIONS
015 NUCLEAR ENGINEERING OCCUPATIONS
017 DRAFTERS, N.E.C.
018 SURVEYING/CARTOGRAPHIC OCCUPATIONS
019 OCCUPATIONS IN ARCHITECTURE, ENGINEERING, AND SURVEYING, N.E.C.

02 OCCUPATIONS IN MATHEMATICS AND PHYSICAL SCIENCES
020 OCCUPATIONS IN MATHEMATICS
021 OCCUPATIONS IN ASTRONOMY
022 OCCUPATIONS IN CHEMISTRY
023 OCCUPATIONS IN PHYSICS
024 OCCUPATIONS IN GEOLOGY
025 OCCUPATIONS IN METEOROLOGY
029 OCCUPATIONS IN MATHEMATICS AND PHYSICAL SCIENCES, N.E.C.

03 COMPUTER-RELATED OCCUPATIONS
030 OCCUPATIONS IN SYSTEMS ANALYSIS AND PROGRAMMING
031 OCCUPATIONS IN DATA COMMUNICATIONS AND NETWORKS
032 OCCUPATIONS IN COMPUTER SYSTEM USER SUPPORT
033 OCCUPATIONS IN COMPUTER SYSTEMS TECHNICAL SUPPORT
039 COMPUTER-RELATED OCCUPATIONS, N.E.C.

04 OCCUPATIONS IN LIFE SCIENCES
040 OCCUPATIONS IN AGRICULTURAL SCIENCES
041 OCCUPATIONS IN BIOLOGICAL SCIENCES
045 OCCUPATIONS IN PSYCHOLOGY
049 OCCUPATIONS IN LIFE SCIENCES, N.E.C.

05 OCCUPATIONS IN SOCIAL SCIENCES
050 OCCUPATIONS IN ECONOMICS
051 OCCUPATIONS IN POLITICAL SCIENCE
052 OCCUPATIONS IN HISTORY
054 OCCUPATIONS IN SOCIOLOGY
055 OCCUPATIONS IN ANTHROPOLOGY
059 OCCUPATIONS IN SOCIAL SCIENCES, N.E.C.

07 OCCUPATIONS IN MEDICINE AND HEALTH
070 PHYSICIANS AND SURGEONS
071 OSTEOPATHS
072 DENTISTS
073 VETERINARIANS
074 PHARMACISTS
075 REGISTERED NURSES
076 THERAPISTS
077 DIETITIANS
078 OCCUPATIONS IN MEDICAL AND DENTAL TECHNO
079 OCCUPATIONS IN MEDICINE AND HEALTH, N.E.C.

09 OCCUPATIONS IN EDUCATION
090 OCCUPATIONS IN COLLEGE AND UNIVERSITY EDU
091 OCCUPATIONS IN SECONDARY SCHOOL EDUCATIO
092 OCCUPATIONS IN PRESCHOOL, PRIMARY SCHOOL, KINDERGARTEN EDUCATION
094 OCCUPATIONS IN EDUCATION OF PERSONS WITH DISABILITIES
096 HOME ECONOMISTS AND FARM ADVISERS
097 OCCUPATIONS IN VOCATIONAL EDUCATION
099 OCCUPATIONS IN EDUCATION, N.E.C.

10 OCCUPATIONS IN MUSEUM, LIBRARY, AND ARCH SCIENCES
100 LIBRARIANS
101 ARCHIVISTS
102 MUSEUM CURATORS AND RELATED OCCUPATIONS
109 OCCUPATIONS IN MUSEUM, LIBRARY, AND ARCHIV SCIENCES, N.E.C.

11 OCCUPATIONS IN LAW AND JURISPRUDENCE
110 LAWYERS
111 JUDGES
119 OCCUPATIONS IN LAW AND JURISPRUDENCE, N.E.C.

12 OCCUPATIONS IN RELIGION AND THEOLOGY
120 CLERGY
129 OCCUPATIONS IN RELIGION AND THEOLOGY, N.E.C.

13 OCCUPATIONS IN WRITING
131 WRITERS
132 EDITORS: PUBLICATION, BROADCAST, AND SCRIPT
137 INTERPRETERS AND TRANSLATORS
139 OCCUPATIONS IN WRITING, N.E.C.

14 OCCUPATIONS IN ART
141 COMMERCIAL ARTISTS: DESIGNERS AND ILLUSTRAT GRAPHIC ARTS
142 ENVIRONMENTAL, PRODUCT, AND RELATED DESIGN
143 OCCUPATIONS IN PHOTOGRAPHY
144 FINE ARTISTS: PAINTERS, SCULPTORS, AND RELATED OCCUPATIONS
149 OCCUPATIONS IN ART, N.E.C.

15 OCCUPATIONS IN ENTERTAINMENT AND RECREATION
150 OCCUPATIONS IN DRAMATICS
151 OCCUPATIONS IN DANCING
152 OCCUPATIONS IN MUSIC
153 OCCUPATIONS IN ATHLETICS AND SPORTS
159 OCCUPATIONS IN ENTERTAINMENT AND RECREATION, N.E.C.

16 OCCUPATIONS IN ADMINISTRATIVE SPECIALIZATIONS
160 ACCOUNTANTS, AUDITORS, AND RELATED OCCUPATIONS
161 BUDGET AND MANAGEMENT SYSTEMS ANALYSIS OCCUPATIONS
162 PURCHASING MANAGEMENT OCCUPATIONS
163 SALES AND DISTRIBUTION MANAGEMENT OCCUPATIONS
164 ADVERTISING MANAGEMENT OCCUPATIONS
165 PUBLIC RELATIONS MANAGEMENT OCCUPATIONS
166 PERSONNEL ADMINISTRATION OCCUPATIONS
168 INSPECTORS AND INVESTIGATORS, MANAGERIAL AND PUBLIC SERVICE
169 OCCUPATIONS IN ADMINISTRATIVE SPECIALIZATIONS, N.E.C.

18 MANAGERS AND OFFICIALS, N.E.C.
180 AGRICULTURE, FORESTRY, AND FISHING INDUSTRY MANAGERS AND OFFICIALS
181 MINING INDUSTRY MANAGERS AND OFFICIALS
182 CONSTRUCTION INDUSTRY MANAGERS AND OFFICIALS
183 MANUFACTURING INDUSTRY MANAGERS AND OFFICIALS
184 TRANSPORTATION, COMMUNICATION, AND UTILITIES INDUSTRY MANAGERS AND OFFICIALS
185 WHOLESALE AND RETAIL TRADE MANAGERS AND OFFICIALS
186 FINANCE, INSURANCE, AND REAL ESTATE MANAGERS AND OFFICIALS
187 SERVICE INDUSTRY MANAGERS AND OFFICIALS
188 PUBLIC ADMINISTRATION MANAGERS AND OFFICIALS
189 MISCELLANEOUS MANAGERS AND OFFICIALS, N.E.C.

19 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS
191 AGENTS AND APPRAISERS, N.E.C.
193 RADIO OPERATORS
194 SOUND, FILM, AND VIDEOTAPE RECORDING, AND REPRODUCTION OCCUPATIONS
195 OCCUPATIONS IN SOCIAL AND WELFARE WORK
196 AIRPLANE PILOTS AND NAVIGATORS
197 SHIP CAPTAINS, MATES, PILOTS, AND ENGINEERS
198 RAILROAD CONDUCTORS
199 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS, N.E.C.

CLERICAL AND SALES OCCUPATIONS

20 STENOGRAPHY, TYPING, FILING, AND RELATED OCCUPATIONS
201 SECRETARIES
202 STENOGRAPHERS
203 TYPISTS AND TYPEWRITING-MACHINE OPERATORS
205 INTERVIEWING CLERKS
206 FILE CLERKS
207 DUPLICATING-MACHINE OPERATORS AND TENDERS
208 MAILING AND MISCELLANEOUS OFFICE MACHINE OPERATORS
209 STENOGRAPHY, TYPING, FILING, AND RELATED OCCUPATIONS, N.E.C.

21 COMPUTING AND ACCOUNT-RECORDING OCCUPATIONS
210 BOOKKEEPERS AND RELATED OCCUPATIONS
211 CASHIERS AND TELLERS
213 COMPUTER AND PERIPHERAL EQUIPMENT OPERATORS
214 BILLING AND RATE CLERKS
215 PAYROLL, TIMEKEEPING, AND DUTY-ROSTER CLERKS
216 ACCOUNTING AND STATISTICAL CLERKS
217 ACCOUNT-RECORDING-MACHINE OPERATORS, N.E.C.
219 COMPUTING AND ACCOUNT-RECORDING OCCUPATIONS, N.E.C.

22 PRODUCTION AND STOCK CLERKS AND RELATED OCCUPATIONS
22 OCCUPATIONS IN MOVING AND STORING MATERIALS AND PRODUCTS, N.E.C.
221 PRODUCTION CLERKS
222 SHIPPING, RECEIVING, STOCK, AND RELATED CLERICAL OCCUPATIONS
229 PRODUCTION AND STOCK CLERKS AND RELATED OCCUPATIONS, N.E.C.

23 INFORMATION AND MESSAGE DISTRIBUTION OCCUPATIONS
230 HAND DELIVERY AND DISTRIBUTION OCCUPATIONS
235 TELEPHONE OPERATORS
236 TELEGRAPH OPERATORS
237 INFORMATION AND RECEPTION CLERKS
238 ACCOMMODATION CLERKS AND GATE AND TICKET AGENTS
239 INFORMATION AND MESSAGE DISTRIBUTION OCCUPATIONS, N.E.C.

24 MISCELLANEOUS CLERICAL OCCUPATIONS
241 INVESTIGATORS, ADJUSTERS, AND RELATED OCCUPATIONS
243 GOVERNMENT SERVICE CLERKS, N.E.C.
245 MEDICAL SERVICE CLERKS, N.E.C.
247 ADVERTISING-SERVICE CLERKS, N.E.C.
248 TRANSPORTATION-SERVICE CLERKS, N.E.C.
249 MISCELLANEOUS CLERICAL OCCUPATIONS, N.E.C.

25 SALES OCCUPATIONS, SERVICES
250 SALES OCCUPATIONS, REAL ESTATE, INSURANCE, SECURITIES AND FINANCIAL SERVICES
251 SALES OCCUPATIONS, BUSINESS SERVICES, EXCEPT REAL ESTATE, INSURANCE, SECURITIES, AND FINANCIAL SERVICES
252 SALES OCCUPATIONS, TRANSPORTATION SERVICES
253 SALES OCCUPATIONS, UTILITIES
254 SALES OCCUPATIONS, PRINTING AND ADVERTISING
259 SALES OCCUPATIONS, SERVICES, N.E.C.

26 SALES OCCUPATIONS, CONSUMABLE COMMODITIES
260 SALES OCCUPATIONS, AGRICULTURAL AND FOOD PRODUCTS
261 SALES OCCUPATIONS, TEXTILE PRODUCTS, APPAREL, AND NOTIONS
262 SALES OCCUPATIONS, CHEMICALS, DRUGS, AND SUNDRIES
269 SALES OCCUPATIONS, MISCELLANEOUS CONSUMABLE COMMODITIES, N.E.C.

27 SALES OCCUPATIONS, COMMODITIES, N.E.C.
270 SALES OCCUPATIONS, HOME FURNITURE, FURNISHINGS, AND APPLIANCES
271 SALES OCCUPATIONS, ELECTRICAL GOODS, EXCEPT HOME APPLIANCES
272 SALES OCCUPATIONS, FARM AND GARDENING EQUIPMENT AND SUPPLIES
273 SALES OCCUPATIONS, TRANSPORTATION EQUIPMENT, PARTS, AND SUPPLIES
274 SALES OCCUPATIONS, INDUSTRIAL AND RELATED EQUIPMENT AND SUPPLIES
275 SALES OCCUPATIONS, BUSINESS AND COMMERCIAL EQUIPMENT AND SUPPLIES
276 SALES OCCUPATIONS, MEDICAL AND SCIENTIFIC EQUIPMENT AND SUPPLIES

277 SALES OCCUPATIONS, SPORTING, HOBBY, STATIONERY, AND RELATED GOODS
279 SALES OCCUPATIONS, MISCELLANEOUS COMMODITIES, N.E.C.
29 MISCELLANEOUS SALES OCCUPATIONS
290 SALES CLERKS
291 VENDING AND DOOR-TO-DOOR SELLING OCCUPATIONS
292 ROUTE SALES AND DELIVERY OCCUPATIONS
293 SOLICITORS
294 AUCTIONEERS
295 RENTAL CLERKS
296 SHOPPERS
297 SALES PROMOTION OCCUPATIONS
298 MERCHANDISE DISPLAYERS
299 MISCELLANEOUS SALES OCCUPATIONS, N.E.C.

SERVICE OCCUPATIONS

30 DOMESTIC SERVICE OCCUPATIONS
301 HOUSEHOLD AND RELATED WORK
302 LAUNDERERS, PRIVATE FAMILY
305 COOKS, DOMESTIC
309 DOMESTIC SERVICE OCCUPATIONS, N.E.C.

31 FOOD AND BEVERAGE PREPARATION AND SERVICE OCCUPATIONS
310 HOSTS/HOSTESSES AND STEWARDS/STEWARDESSES, FOOD AND BEVERAGE SERVICE, EXCEPT SHIP STEWARDS/STEWARDESSES
311 WAITERS/WAITRESSES, AND RELATED FOOD SERVICE OCCUPATIONS
312 BARTENDERS
313 CHEFS AND COOKS, HOTELS AND RESTAURANTS
315 MISCELLANEOUS COOKS, EXCEPT DOMESTIC
316 MEATCUTTERS, EXCEPT IN SLAUGHTERING AND PACKING HOUSES
317 MISCELLANEOUS FOOD AND BEVERAGE PREPARATION OCCUPATIONS
318 KITCHEN WORKERS, N.E.C.
319 FOOD AND BEVERAGE PREPARATION AND SERVICE OCCUPATIONS, N.E.C.

32 LODGING AND RELATED SERVICE OCCUPATIONS
320 BOARDING-HOUSE AND LODGING-HOUSE KEEPERS
321 HOUSEKEEPERS, HOTELS AND INSTITUTIONS
323 HOUSECLEANERS, HOTELS, RESTAURANTS, AND RELATED ESTABLISHMENTS
324 BELLHOPS AND RELATED OCCUPATIONS
329 LODGING AND RELATED SERVICE OCCUPATIONS, N.E.C.

33 BARBERING, COSMETOLOGY, AND RELATED SERVICE OCCUPATIONS
330 BARBERS
331 MANICURISTS
332 HAIRDRESSERS AND COSMETOLOGISTS
333 MAKE-UP OCCUPATIONS
334 MASSEURS AND RELATED OCCUPATIONS
335 BATH ATTENDANTS
338 EMBALMERS AND RELATED OCCUPATIONS
339 BARBERING, COSMETOLOGY, AND RELATED SERVICE OCCUPATIONS, N.E.C.

34 AMUSEMENT AND RECREATION SERVICE OCCUPATIONS
340 ATTENDANTS, BOWLING ALLEY AND BILLIARD PARLOR
341 ATTENDANTS, GOLF COURSE, TENNIS COURT, SKATING RINK, AND RELATED FACILITIES
342 AMUSEMENT DEVICE AND CONCESSION ATTENDANTS
343 GAMBLING HALL ATTENDANTS
344 USHERS
346 WARDROBE AND DRESSING-ROOM ATTENDANTS
349 AMUSEMENT AND RECREATION SERVICE OCCUPATI N.E.C.

35 MISCELLANEOUS PERSONAL SERVICE OCCUPATIO
350 SHIP STEWARDS/STEWARDESSES AND RELATED OCCUPATIONS
351 TRAIN ATTENDANTS
352 HOSTS/HOSTESSES AND STEWARDS/STEWARDESSES,
353 GUIDES
354 UNLICENSED BIRTH ATTENDANTS AND PRACTICAL
355 ATTENDANTS, HOSPITALS, MORGUES, AND RELATED HEALTH SERVICES
357 BAGGAGE HANDLERS
358 CHECKROOM, LOCKER ROOM, AND REST ROOM ATTENDANTS
359 MISCELLANEOUS PERSONAL SERVICE OCCUPATIONS

36 APPAREL AND FURNISHINGS SERVICE OCCUPATIO
361 LAUNDERING OCCUPATIONS
362 DRY CLEANING OCCUPATIONS
363 PRESSING OCCUPATIONS
364 DYEING AND RELATED OCCUPATIONS
365 SHOE AND LUGGAGE REPAIRER AND RELATED OCCUPATIONS
366 BOOTBLACKS AND RELATED OCCUPATIONS
369 APPAREL AND FURNISHINGS SERVICE OCCUPATIONS,

37 PROTECTIVE SERVICE OCCUPATIONS
371 CROSSING TENDERS AND BRIDGE OPERATORS
372 SECURITY GUARDS AND CORRECTION OFFICERS, EXC CROSSING TENDERS
373 FIRE FIGHTERS, FIRE DEPARTMENT
375 POLICE OFFICERS AND DETECTIVES, PUBLIC SERVICE
376 POLICE OFFICERS AND DETECTIVES, EXCEPT IN PUBL SERVICE
377 SHERIFFS AND BAILIFFS
378 ARMED FORCES ENLISTED PERSONNEL
379 PROTECTIVE SERVICE OCCUPATIONS, N.E.C.

38 BUILDING AND RELATED SERVICE OCCUPATIONS
381 PORTERS AND CLEANERS
382 JANITORS
383 BUILDING PEST CONTROL SERVICE OCCUPATIONS
388 ELEVATOR OPERATORS
389 BUILDING AND RELATED SERVICE OCCUPATIONS, N.E

AGRICULTURAL, FISHERY, FORESTRY, AND RELATED OCCUPATIONS

40 PLANT FARMING OCCUPATIONS
401 GRAIN FARMING OCCUPATIONS
402 VEGETABLE FARMING OCCUPATIONS
403 FRUIT AND NUT FARMING OCCUPATIONS
404 FIELD CROP FARMING OCCUPATIONS, N.E.C.
405 HORTICULTURAL SPECIALTY OCCUPATIONS
406 GARDENING AND GROUNDSKEEPING OCCUPATIONS
407 DIVERSIFIED CROP FARMING OCCUPATIONS
408 PLANT LIFE AND RELATED SERVICE OCCUPATIONS
409 PLANT FARMING AND RELATED OCCUPATIONS, N.E.C.

41 ANIMAL FARMING OCCUPATIONS
410 DOMESTIC ANIMAL FARMING OCCUPATIONS
411 DOMESTIC FOWL FARMING OCCUPATIONS
412 GAME FARMING OCCUPATIONS
413 LOWER ANIMAL FARMING OCCUPATIONS
418 ANIMAL SERVICE OCCUPATIONS
419 ANIMAL FARMING OCCUPATIONS, N.E.C.

42 MISCELLANEOUS AGRICULTURAL AND RELATED OCCUPATIONS
421 GENERAL FARMING OCCUPATIONS
429 MISCELLANEOUS AGRICULTURAL AND RELATED OCCUPATIONS, N.E.C.

44 FISHERY AND RELATED OCCUPATIONS
441 NET, SEINE, AND TRAP FISHERS
442 LINE FISHERS
443 FISHERS, MISCELLANEOUS EQUIPMENT
446 AQUATIC LIFE CULTIVATION AND RELATED OCCUPATIONS
447 SPONGE AND SEAWEED GATHERERS
449 FISHERY AND RELATED OCCUPATIONS, N.E.C.

45 FORESTRY OCCUPATIONS
451 TREE FARMING AND RELATED OCCUPATIONS
452 FOREST CONSERVATION OCCUPATIONS
453 OCCUPATIONS IN HARVESTING FOREST PRODUCTS, EXCEPT LOGGING
454 LOGGING AND RELATED OCCUPATIONS
455 LOG GRADING, SCALING, SORTING, RAFTING, AND RELATED OCCUPATIONS
459 FORESTRY OCCUPATIONS, N.E.C.

46 HUNTING, TRAPPING, AND RELATED OCCUPATIONS
461 HUNTING AND TRAPPING OCCUPATIONS

PROCESSING OCCUPATIONS

50 OCCUPATIONS IN PROCESSING OF METAL
500 ELECTROPLATING OCCUPATIONS
501 DIP PLATING OCCUPATIONS
502 MELTING, POURING, CASTING, AND RELATED OCCUPATIONS
503 PICKLING, CLEANING, DEGREASING, AND RELATED OCCUPATIONS
504 HEAT-TREATING OCCUPATIONS
505 METAL SPRAYING, COATING, AND RELATED OCCUPATIONS
509 OCCUPATIONS IN PROCESSING OF METAL, N.E.C.

51 ORE REFINING AND FOUNDRY OCCUPATIONS
510 MIXING AND RELATED OCCUPATIONS
511 SEPARATING, FILTERING, AND RELATED OCCUPATIONS
512 MELTING OCCUPATIONS
513 ROASTING OCCUPATIONS
514 POURING AND CASTING OCCUPATIONS
515 CRUSHING AND GRINDING OCCUPATIONS
518 MOLDERS, COREMAKERS, AND RELATED OCCUPATIONS
519 ORE REFINING AND FOUNDRY OCCUPATIONS, N.E.C.

52 OCCUPATIONS IN PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS
520 MIXING, COMPOUNDING, BLENDING, KNEADING, SHAPING, AND RELATED OCCUPATIONS
521 SEPARATING, CRUSHING, MILLING, CHOPPING, GRINDING, AND RELATED OCCUPATIONS
522 CULTURING, MELTING, FERMENTING, DISTILLING, SATURATING, PICKLING, AGING, AND RELATED OCCUPATIONS
523 HEATING, RENDERING, MELTING, DRYING, COOLING, FREEZING, AND RELATED OCCUPATIONS
524 COATING, ICING, DECORATING, AND RELATED OCCUPATIONS
525 SLAUGHTERING, BREAKING, CURING, AND RELATED OCCUPATIONS
526 COOKING AND BAKING OCCUPATIONS, N.E.C.
529 OCCUPATIONS IN PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS, N.E.C.

53 OCCUPATIONS IN PROCESSING OF PAPER AND RELATED MATERIALS
530 GRINDING, BEATING, AND MIXING OCCUPATIONS
532 COOKING AND DRYING OCCUPATIONS
533 COOLING, BLEACHING, SCREENING, WASHING, AND RELATED OCCUPATIONS
534 CALENDERING, SIZING, COATING, AND RELATED OCCUPATIONS
535 FORMING OCCUPATIONS, N.E.C.
539 OCCUPATIONS IN PROCESSING OF PAPER AND RELATED MATERIALS, N.E.C.

54 OCCUPATIONS IN PROCESSING OF PETROLEUM, COAL, NATURAL AND MANUFACTURED GAS, AND RELATED PRODUCTS
540 MIXING AND BLENDING OCCUPATIONS
541 FILTERING, STRAINING, AND SEPARATING OCCUPATIONS
542 DISTILLING, SUBLIMING, AND CARBONIZING OCCUPATIONS
543 DRYING, HEATING, AND MELTING OCCUPATIONS
544 GRINDING AND CRUSHING OCCUPATIONS
546 REACTING OCCUPATIONS, N.E.C.
549 OCCUPATIONS IN PROCESSING OF PETROLEUM, COAL, NATURAL AND MANUFACTURED GAS, AND RELATED PRODUCTS, N.E.C.

55 OCCUPATIONS IN PROCESSING OF CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, AND RELATED PRODUCTS
550 MIXING AND BLENDING OCCUPATIONS
551 FILTERING, STRAINING, AND SEPARATING OCCUPATIONS
552 DISTILLING OCCUPATIONS
553 HEATING, BAKING, DRYING, SEASONING, MELTING, AND HEAT-TREATING OCCUPATIONS
554 COATING, CALENDERING, LAMINATING, AND FINISHING OCCUPATIONS
555 GRINDING AND CRUSHING OCCUPATIONS
556 CASTING AND MOLDING OCCUPATIONS, N.E.C.
557 EXTRUDING OCCUPATIONS
558 REACTING OCCUPATIONS, N.E.C.
559 OCCUPATIONS IN PROCESSING OF CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, AND RELATED PRODUCTS, N.E.C.

56 OCCUPATIONS IN PROCESSING OF WOOD AND WOOD PRODUCTS
560 MIXING AND RELATED OCCUPATIONS
561 WOOD PRESERVING AND RELATED OCCUPATIONS
562 SATURATING, COATING, AND RELATED OCCUPATIONS, N.E.C.

563 DRYING, SEASONING, AND RELATED OCCUPATIONS
564 GRINDING AND CHOPPING OCCUPATIONS, N.E.C.
569 OCCUPATIONS IN PROCESSING OF WOOD AND WOOD PRODUCTS, N.E.C.

57 OCCUPATIONS IN PROCESSING OF STONE, CLAY, GLASS, AND RELATED PRODUCTS
570 CRUSHING, GRINDING, AND MIXING OCCUPATIONS
571 SEPARATING OCCUPATIONS
572 MELTING OCCUPATIONS
573 BAKING, DRYING, AND HEAT-TREATING OCCUPATIONS
574 IMPREGNATING, COATING, AND GLAZING OCCUPATIONS
575 FORMING OCCUPATIONS
579 OCCUPATIONS IN PROCESSING OF STONE, CLAY, GLASS, AND RELATED PRODUCTS, N.E.C.

58 OCCUPATIONS IN PROCESSING OF LEATHER, TEXTILES, AND RELATED PRODUCTS
580 SHAPING, BLOCKING, STRETCHING, AND TENTER
OCCUPATIONS
581 SEPARATING, FILTERING, AND DRYING OCCUPAT
582 WASHING, STEAMING, AND SATURATING OCCUPA
583 IRONING, PRESSING, GLAZING, STAKING, CALEND
AND EMBOSSING OCCUPATIONS
584 MERCERIZING, COATING, AND LAMINATING OCCU
585 SINGEING, CUTTING, SHEARING, SHAVING, AND N
OCCUPATIONS
586 FELTING AND FULLING OCCUPATIONS
587 BRUSHING AND SHRINKING OCCUPATIONS
589 OCCUPATIONS IN PROCESSING OF LEATHER, TEXT
RELATED PRODUCTS, N.E.C.

59 PROCESSING OCCUPATIONS, N.E.C.
590 OCCUPATIONS IN PROCESSING PRODUCTS FROM A
MATERIALS
599 MISCELLANEOUS PROCESSING OCCUPATIONS, N.E.

MACHINE TRADES OCCUPATIONS

60 METAL MACHINING OCCUPATIONS
600 MACHINISTS AND RELATED OCCUPATIONS
601 TOOLMAKERS AND RELATED OCCUPATIONS
602 GEAR MACHINING OCCUPATIONS
603 ABRADING OCCUPATIONS
604 TURNING OCCUPATIONS
605 MILLING, SHAPING, AND PLANING OCCUPATIONS
606 BORING OCCUPATIONS
607 SAWING OCCUPATIONS
609 METAL MACHINING OCCUPATIONS, N.E.C.

61 METALWORKING OCCUPATIONS, N.E.C.
610 HAMMER FORGING OCCUPATIONS
611 PRESS FORGING OCCUPATIONS
612 FORGING OCCUPATIONS, N.E.C.
613 SHEET AND BAR ROLLING OCCUPATIONS
614 EXTRUDING AND DRAWING OCCUPATIONS
615 PUNCHING AND SHEARING OCCUPATIONS
616 FABRICATING MACHINE OCCUPATIONS
617 FORMING OCCUPATIONS, N.E.C.
619 MISCELLANEOUS METALWORKING OCCUPATIONS, N.E.C.

62/63 MECHANICS AND MACHINERY REPAIRERS
620 MOTORIZED VEHICLE AND ENGINEERING EQUIPMENT MECHANICS AND REPAIRERS
621 AIRCRAFT MECHANICS AND REPAIRERS
622 RAIL EQUIPMENT MECHANICS AND REPAIRERS
623 MARINE MECHANICS AND REPAIRERS
624 FARM MECHANICS AND REPAIRERS
625 ENGINE, POWER TRANSMISSION, AND RELATED MECHANICS
626 METALWORKING MACHINERY MECHANICS
627 PRINTING AND PUBLISHING MECHANICS AND REPAIRERS
628 TEXTILE MACHINERY AND EQUIPMENT MECHANICS AND REPAIRERS
629 SPECIAL INDUSTRY MACHINERY MECHANICS
630 GENERAL INDUSTRY MECHANICS AND REPAIRERS
631 POWERPLANT MECHANICS AND REPAIRERS
632 ORDNANCE AND ACCESSORIES MECHANICS AND REPAIRERS
633 BUSINESS AND COMMERCIAL MACHINE REPAIRERS
637 UTILITIES SERVICE MECHANICS AND REPAIRERS
638 MISCELLANEOUS OCCUPATIONS IN MACHINE INSTALLATION AND REPAIR
639 MECHANICS AND MACHINERY REPAIRERS, N.E.C.

64 PAPERWORKING OCCUPATIONS
640 PAPER CUTTING, WINDING, AND RELATED OCCUPATIONS
641 FOLDING, CREASING, SCORING, AND GLUING OCCUPATIONS
649 PAPERWORKING OCCUPATIONS, N.E.C.

65 PRINTING OCCUPATIONS
650 TYPESETTERS AND COMPOSERS
651 PRINTING PRESS OCCUPATIONS
652 PRINTING MACHINE OCCUPATIONS
653 BOOKBINDING-MACHINE OPERATORS AND RELATE
OCCUPATIONS
654 TYPECASTERS AND RELATED OCCUPATIONS
659 PRINTING OCCUPATIONS, N.E.C.

66 WOOD MACHINING OCCUPATIONS
660 CABINETMAKERS
661 PATTERNMAKERS
662 SANDING OCCUPATIONS
663 SHEARING AND SHAVING OCCUPATIONS
664 TURNING OCCUPATIONS
665 MILLING AND PLANING OCCUPATIONS
666 BORING OCCUPATIONS
667 SAWING OCCUPATIONS
669 WOOD MACHINING OCCUPATIONS, N.E.C.

67 OCCUPATIONS IN MACHINING STONE, CLAY, GLA
RELATED MATERIALS
670 STONECUTTERS AND RELATED OCCUPATIONS
673 ABRADING OCCUPATIONS
674 TURNING OCCUPATIONS
675 PLANING AND SHAPING OCCUPATIONS, N.E.C.
676 BORING AND PUNCHING OCCUPATIONS
677 CHIPPING, CUTTING, SAWING, AND RELATED OCCUP
679 OCCUPATIONS IN MACHINING STONE, CLAY, GLASS,
RELATED MATERIALS, N.E.C.

68 TEXTILE OCCUPATIONS
680 CARDING, COMBING, DRAWING, AND RELATED OCCUPATIONS
681 TWISTING, BEAMING, WARPING, AND RELATED OCCUPATIONS
682 SPINNING OCCUPATIONS
683 WEAVERS AND RELATED OCCUPATIONS
684 HOSIERY KNITTING OCCUPATIONS
685 KNITTING OCCUPATIONS, EXCEPT HOSIERY
686 PUNCHING, CUTTING, FORMING, AND RELATED OCCUPATIONS
687 TUFTING OCCUPATIONS
689 TEXTILE OCCUPATIONS, N.E.C.

69 MACHINE TRADES OCCUPATIONS, N.E.C.
690 PLASTICS, SYNTHETICS, RUBBER, AND LEATHER WOR
OCCUPATIONS
691 OCCUPATIONS IN FABRICATION OF INSULATED WIRE
CABLE

692 OCCUPATIONS IN FABRICATION OF PRODUCTS FROM ASSORTED MATERIALS
693 MODELMAKERS, PATTERNMAKERS, AND RELATED OCCUPATIONS
694 OCCUPATIONS IN FABRICATION OF ORDNANCE, AMMUNITION, AND RELATED PRODUCTS, N.E.C.
699 MISCELLANEOUS MACHINE TRADES OCCUPATIONS, N.E.C.

BENCHWORK OCCUPATIONS

70 OCCUPATIONS IN FABRICATION, ASSEMBLY, AND REPAIR OF METAL PRODUCTS, N.E.C.
700 OCCUPATIONS IN FABRICATION, ASSEMBLY, AND REPAIR OF JEWELRY, SILVERWARE, AND RELATED PRODUCTS
701 OCCUPATIONS IN FABRICATION, ASSEMBLY, AND REPAIR OF TOOLS, AND RELATED PRODUCTS
703 OCCUPATIONS IN ASSEMBLY AND REPAIR OF SHEETMETAL PRODUCTS, N.E.C.
704 ENGRAVERS, ETCHERS, AND RELATED OCCUPATIONS
705 FILING, GRINDING, BUFFING, CLEANING, AND POLISHING OCCUPATIONS, N.E.C.
706 METAL UNIT ASSEMBLERS AND ADJUSTERS, N.E.C.
709 MISCELLANEOUS OCCUPATIONS IN FABRICATION, ASSEMBLY, AND REPAIR OF METAL PRODUCTS, N.E.C.

71 OCCUPATIONS IN FABRICATION AND REPAIR OF SCIENTIFIC, MEDICAL, PHOTOGRAPHIC, OPTICAL, HOROLOGICAL, AND RELATED PRODUCTS
710 OCCUPATIONS IN FABRICATION AND REPAIR OF INSTRUMENTS FOR MEASURING, CONTROLLING, AND INDICATING PHYSICAL CHARACTERISTICS
711 OCCUPATIONS IN FABRICATION AND REPAIR OF OPTICAL INSTRUMENTS
712 OCCUPATIONS IN FABRICATION AND REPAIR OF SURGICAL, MEDICAL, AND DENTAL INSTRUMENTS AND SUPPLIES
713 OCCUPATIONS IN FABRICATION AND REPAIR OF OPHTHALMIC GOODS
714 OCCUPATIONS IN FABRICATION AND REPAIR OF PHOTOGRAPHIC EQUIPMENT AND SUPPLIES
715 OCCUPATIONS IN FABRICATION AND REPAIR OF WATCHES, CLOCKS, AND PARTS
716 OCCUPATIONS IN FABRICATION AND REPAIR OF ENGINEERING AND SCIENTIFIC INSTRUMENTS AND EQUIPMENT, N.E.C.
719 OCCUPATIONS IN FABRICATION AND REPAIR OF SCIENTIFIC AND MEDICAL APPARATUS, PHOTOGRAPHIC AND OPTICAL GOODS, HOROLOGICAL, AND RELATED PRODUCTS, N.E.C.

72 OCCUPATIONS IN ASSEMBLY AND REPAIR OF ELECTRICAL EQUIPMENT
720 OCCUPATIONS IN ASSEMBLY AND REPAIR OF RADIO AND TELEVISION RECEIVING SETS AND PHONOGRAPHS
721 OCCUPATIONS IN ASSEMBLY AND REPAIR OF MOTORS, GENERATORS, AND RELATED PRODUCTS
722 OCCUPATIONS IN ASSEMBLY AND REPAIR OF COMMUNICATIONS EQUIPMENT
723 OCCUPATIONS IN ASSEMBLY AND REPAIR OF ELECTRICAL APPLIANCES AND FIXTURES
724 OCCUPATIONS IN WINDING AND ASSEMBLING COILS, MAGNETS, ARMATURES, AND RELATED PRODUCTS
725 OCCUPATIONS IN ASSEMBLY OF LIGHT BULBS AND ELECTRONIC TUBES
726 OCCUPATIONS IN ASSEMBLY AND REPAIR OF ELECTRONIC COMPONENTS AND ACCESSORIES, N.E.C.
727 OCCUPATIONS IN ASSEMBLY OF STORAGE BATTERIES
728 OCCUPATIONS IN FABRICATION OF ELECTRICAL WIRE AND CABLE
729 OCCUPATIONS IN ASSEMBLY AND REPAIR OF ELECTRICAL EQUIPMENT, N.E.C.

73 OCCUPATIONS IN FABRICATION AND REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS
730 OCCUPATIONS IN FABRICATION AND REPAIR OF MUSICAL INSTRUMENTS AND PARTS
731 OCCUPATIONS IN FABRICATION AND REPAIR OF GAMES AND TOYS
732 OCCUPATIONS IN FABRICATION AND REPAIR OF SPORTING GOODS
733 OCCUPATIONS IN FABRICATION AND REPAIR OF PENS, PENCILS, AND OFFICE AND ARTISTS' MATERIALS, N.E.C.
734 OCCUPATIONS IN FABRICATION AND REPAIR OF NOTIONS
735 OCCUPATIONS IN FABRICATION AND REPAIR OF JEWELRY, N.E.C.
736 OCCUPATIONS IN FABRICATION AND REPAIR OF ORDNANCE AND ACCESSORIES
737 OCCUPATIONS IN FABRICATION OF AMMUNITION, FIREWORKS, EXPLOSIVES, AND RELATED PRODUCTS
739 OCCUPATIONS IN FABRICATION AND REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS, N.E.C.

74 PAINTING, DECORATING, AND RELATED OCCUPATIONS
740 PAINTERS, BRUSH
741 PAINTERS, SPRAY
742 STAINING, WAXING, AND RELATED OCCUPATIONS
749 PAINTING, DECORATING, AND RELATED OCCUPATIONS, N.E.C.

75 OCCUPATIONS IN FABRICATION AND REPAIR OF PLASTICS, SYNTHETICS, RUBBER, AND RELATED PRODUCTS
750 OCCUPATIONS IN FABRICATION AND REPAIR OF TIRES, TUBES, TIRE TREADS, AND RELATED PRODUCTS
751 LAYING OUT AND CUTTING OCCUPATIONS, N.E.C.
752 FITTING, SHAPING, CEMENTING, FINISHING, AND RELATED OCCUPATIONS, N.E.C.
753 OCCUPATIONS IN FABRICATION AND REPAIR OF RUBBER AND PLASTIC FOOTWEAR
754 OCCUPATIONS IN FABRICATION AND REPAIR OF MISCELLANEOUS PLASTICS PRODUCTS
759 OCCUPATIONS IN FABRICATION AND REPAIR OF PLASTICS, SYNTHETICS, RUBBER, AND RELATED PRODUCTS, N.E.C.

76 OCCUPATIONS IN FABRICATION AND REPAIR OF WOOD PRODUCTS
760 BENCH CARPENTERS AND RELATED OCCUPATIONS
761 OCCUPATIONS IN LAYING OUT, CUTTING, CARVING, SHAPING, AND SANDING WOOD PRODUCTS, N.E.C.
762 OCCUPATIONS IN ASSEMBLING WOOD PRODUCTS, N.E.C.
763 OCCUPATIONS IN FABRICATION AND REPAIR OF FURNITURE, N.E.C.
764 COOPERAGE OCCUPATIONS
769 OCCUPATIONS IN FABRICATION AND REPAIR OF WOOD PRODUCTS, N.E.C.

77 OCCUPATIONS IN FABRICATION AND REPAIR OF SAND, STONE, CLAY, AND GLASS PRODUCTS
770 OCCUPATIONS IN FABRICATION AND REPAIR OF JEWELRY, ORNAMENTS, AND RELATED PRODUCTS
771 STONE CUTTERS AND CARVERS
772 GLASS BLOWING, PRESSING, SHAPING, AND RELATED OCCUPATIONS, N.E.C.
773 OCCUPATIONS IN COLORING AND DECORATING BRICK, TILE, AND RELATED PRODUCTS
774 OCCUPATIONS IN FABRICATION AND REPAIR OF POTTERY AND PORCELAIN WARE
775 GRINDING, FILING, POLISHING, FROSTING, ETCHING, CLEANING, AND RELATED OCCUPATIONS, N.E.C.

776 OCCUPATIONS IN FABRICATION AND REPAIR OF ASBESTOS AND POLISHING PRODUCTS, ABRASIVES, AND RELATED MATERIALS
777 MODELMAKERS, PATTERNMAKERS, MOLDMAKERS, AND RELATED OCCUPATIONS
779 OCCUPATIONS IN FABRICATION AND REPAIR OF SAND, STONE, CLAY, AND GLASS PRODUCTS, N.E.C.

78 OCCUPATIONS IN FABRICATION AND REPAIR OF TEXTILE, LEATHER, AND RELATED PRODUCTS
780 OCCUPATIONS IN UPHOLSTERING AND IN FABRICATION AND REPAIR OF STUFFED FURNITURE, MATTRESSES, AND RELATED PRODUCTS
781 LAYING OUT, MARKING, CUTTING, AND PUNCHING OCCUPATIONS, N.E.C.
782 HAND SEWERS, MENDERS, EMBROIDERERS, KNITTERS, AND RELATED OCCUPATIONS, N.E.C.
783 FUR AND LEATHER WORKING OCCUPATIONS
784 OCCUPATIONS IN FABRICATION AND REPAIR OF H GLOVES, AND RELATED PRODUCTS
785 TAILORS AND DRESSMAKERS
786 SEWING MACHINE OPERATORS, GARMENT
787 SEWING MACHINE OPERATORS, NONGARMENT
788 OCCUPATIONS IN FABRICATION AND REPAIR OF F
789 OCCUPATIONS IN FABRICATION AND REPAIR OF T LEATHER, AND RELATED PRODUCTS, N.E.C.

79 BENCH WORK OCCUPATIONS, N.E.C.
790 OCCUPATIONS IN PREPARATION OF FOOD, TOBACC RELATED PRODUCTS, N.E.C.
794 OCCUPATIONS IN FABRICATION OF PAPER PRODUC
795 GLUING OCCUPATIONS, N.E.C.

STRUCTURAL WORK OCCUPATIONS

80 OCCUPATIONS IN METAL FABRICATING, N.E.C.
800 RIVETERS, N.E.C.
801 FITTING, BOLTING, SCREWING, AND RELATED OCCUPATIONS
804 TINSMITHS, COPPERSMITHS, AND SHEET METAL WORKERS
805 BOILERMAKERS
806 TRANSPORTATION EQUIPMENT ASSEMBLERS AND RELATED OCCUPATIONS
807 STRUCTURAL REPAIRERS, TRANSPORTATION EQUIPMENT
809 MISCELLANEOUS OCCUPATIONS IN METAL FABRICATING, N.E.C.

81 WELDERS, CUTTERS, AND RELATED OCCUPATIONS
810 ARC WELDERS AND CUTTERS
811 GAS WELDERS
812 RESISTANCE WELDERS
813 BRAZING, BRAZE-WELDING, AND SOLDERING OCCUPATIONS
814 SOLID STATE WELDERS
815 ELECTRON-BEAM; ELECTROSLAG; THERMIT; INDUCTION; AND LASER-BEAM WELDERS
816 THERMAL CUTTERS AND ARC CUTTERS
819 WELDERS, CUTTERS, AND RELATED OCCUPATIONS, N.E.C.

82 ELECTRICAL ASSEMBLING, INSTALLING, AND REPAIRING OCCUPATIONS
820 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND REPAIR OF GENERATORS, MOTORS, ACCESSORIES, AND RELATED POWERPLANT EQUIPMENT
821 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND REPAIR OF TRANSMISSION AND DISTRIBUTION LINES AND CIRCUITS
822 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND REPAIR OF WIRE COMMUNICATION, DETECTION AND SIGNALING EQUIPMENT
823 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND REPAIR OF ELECTRONIC COMMUNICATION, DETECTION, AND SIGNALING EQUIPMENT
824 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND REPAIR OF LIGHTING EQUIPMENT AND BUILDING WIRING, N.E.C.
825 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND REPAIR OF TRANSPORTATION AND MATERIAL-HANDLING EQUIPMENT, N.E.C.
826 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND REPAIR OF INDUSTRIAL APPARATUS, N.E.C.
827 OCCUPATIONS IN ASSEMBLY, INSTALLATION, AND OF LARGE HOUSEHOLD APPLIANCES AND SIMILA COMMERCIAL AND INDUSTRIAL EQUIPMENT
828 OCCUPATIONS IN FABRICATION, INSTALLATION, AN REPAIR OF ELECTRICAL AND ELECTRONICS PROD N.E.C.
829 OCCUPATIONS IN INSTALLATION AND REPAIR OF ELECTRICAL PRODUCTS, N.E.C.

84 PAINTING, PLASTERING, WATERPROOFING, CEME AND RELATED OCCUPATIONS
840 CONSTRUCTION AND MAINTENANCE PAINTERS AND RELATED OCCUPATIONS
841 PAPERHANGERS
842 PLASTERERS AND RELATED OCCUPATIONS
843 WATERPROOFING AND RELATED OCCUPATIONS
844 CEMENT AND CONCRETE FINISHING AND RELATED OCCUPATIONS
845 TRANSPORTATION EQUIPMENT PAINTERS AND RELAT OCCUPATIONS
849 PAINTING, PLASTERING, WATERPROOFING, CEMENTIN AND RELATED OCCUPATIONS, N.E.C.

85 EXCAVATING, GRADING, PAVING, AND RELATED OCCUPATIONS
850 EXCAVATING, GRADING, AND RELATED OCCUPATION
851 DRAINAGE AND RELATED OCCUPATIONS
853 PAVING OCCUPATIONS, ASPHALT AND CONCRETE
859 EXCAVATING, GRADING, PAVING, AND RELATED OCCUPATIONS, N.E.C.

86 CONSTRUCTION OCCUPATIONS, N.E.C.
860 CARPENTERS AND RELATED OCCUPATIONS
861 BRICK AND STONE MASONS AND TILE SETTERS
862 PLUMBERS, GAS FITTERS, STEAM FITTERS, AND RELAT OCCUPATIONS
863 ASBESTOS AND INSULATION WORKERS
864 FLOOR LAYING AND FINISHING OCCUPATIONS
865 GLAZIERS AND RELATED OCCUPATIONS
866 ROOFERS AND RELATED OCCUPATIONS
869 MISCELLANEOUS CONSTRUCTION OCCUPATIONS, N.E.C

89 STRUCTURAL WORK OCCUPATIONS, N.E.C.
891 OCCUPATIONS IN STRUCTURAL MAINTENANCE, N.E.C.
899 MISCELLANEOUS STRUCTURAL WORK OCCUPATIONS, N

MISCELLANEOUS OCCUPATIONS

90 MOTOR FREIGHT OCCUPATIONS
900 CONCRETE-MIXING-TRUCK DRIVERS
902 DUMP-TRUCK DRIVERS
903 TRUCK DRIVERS, INFLAMMABLES
904 TRAILER-TRUCK DRIVERS
905 TRUCK DRIVERS, HEAVY
906 TRUCK DRIVERS, LIGHT
909 MOTOR FREIGHT OCCUPATIONS, N.E.C.

91 TRANSPORTATION OCCUPATIONS, N.E.C.
910 RAILROAD TRANSPORTATION OCCUPATIONS
911 WATER TRANSPORTATION OCCUPATIONS
912 AIR TRANSPORTATION OCCUPATIONS
913 PASSENGER TRANSPORTATION OCCUPATIONS, N.E.C.
914 PUMPING AND PIPELINE TRANSPORTATION OCCUPATIONS
915 ATTENDANTS AND SERVICERS, PARKING LOTS AND AUTOMOTIVE SERVICE FACILITIES
919 MISCELLANEOUS TRANSPORTATION OCCUPATIONS, N.E.C.

92 PACKAGING AND MATERIALS HANDLING OCCUPATIONS
920 PACKAGING OCCUPATIONS
921 HOISTING AND CONVEYING OCCUPATIONS
929 PACKAGING AND MATERIALS HANDLING OCCUPATIONS, N.E.C.

93 OCCUPATIONS IN EXTRACTION OF MINERALS
930 EARTH BORING, DRILLING, CUTTING, AND RELATED OCCUPATIONS
931 BLASTING OCCUPATIONS
932 LOADING AND CONVEYING OPERATIONS
933 CRUSHING OCCUPATIONS
934 SCREENING AND RELATED OCCUPATIONS
939 OCCUPATIONS IN EXTRACTION OF MINERALS, N.E.C.

95 OCCUPATIONS IN PRODUCTION AND DISTRIBUTION OF UTILITIES
950 STATIONARY ENGINEERS
951 FIRERS AND RELATED OCCUPATIONS
952 OCCUPATIONS IN GENERATION, TRANSMISSION, AND DISTRIBUTION OF ELECTRIC LIGHT AND POWER
953 OCCUPATIONS IN PRODUCTION AND DISTRIBUTION OF GAS
954 OCCUPATIONS IN FILTRATION, PURIFICATION, AND DISTRIBUTION OF WATER
955 OCCUPATIONS IN DISPOSAL OF REFUSE AND SEWAGE
956 OCCUPATIONS IN DISTRIBUTION OF STEAM
959 OCCUPATIONS IN PRODUCTION AND DISTRIBUTION OF UTILITIES, N.E.C.

96 AMUSEMENT, RECREATION, MOTION PICTURE, RADIO AND TELEVISION OCCUPATIONS, N.E.C.
960 MOTION PICTURE PROJECTIONISTS
961 MODELS, STAND-INS, AND EXTRAS, N.E.C.
962 OCCUPATIONS IN MOTION PICTURE, TELEVISION, AND THEATRICAL PRODUCTIONS, N.E.C.
969 MISCELLANEOUS AMUSEMENT AND RECREATION OCCUPATIONS, N.E.C.

97 OCCUPATIONS IN GRAPHIC ART WORK
970 ART WORK OCCUPATIONS, BRUSH, SPRAY, OR PEN
971 PHOTOENGRAVING OCCUPATIONS
972 LITHOGRAPHERS AND RELATED OCCUPATIONS
973 HAND COMPOSITORS, TYPESETTERS, AND RELATED OCCUPATIONS
974 ELECTROTYPERS, STEREOTYPERS, AND RELATED OCCUPATIONS
976 DARKROOM OCCUPATIONS, N.E.C.
977 BOOKBINDERS AND RELATED OCCUPATIONS
979 OCCUPATIONS IN GRAPHIC ART WORK, N.E.C.

MASTER TITLES AND DEFINITIONS

Master definitions describe work duties that are common or potentially common to a number of jobs. Jobs in which the common duties are an essential part refer to the Master definition title as a device to save space and to avoid repetition of the common duties. Clues to classifications of jobs utilizing Master definitions are provided.

APPRENTICE (any industry)

A worker who learns, according to written or oral contractual agreement, a recognized skilled craft or trade requiring one or more years of on-the-job training through job experience supplemented by related instruction, prior to being considered a qualified skilled worker. High school or vocational school education is often a prerequisite for entry into an apprenticeship program. Provisions of apprenticeship agreement regularly include length of apprenticeship; a progressive scale of wages; work processes to be taught; and amount of instruction in subjects related to the craft or trade, such as characteristics of materials used, physics, mathematics, estimating, and blueprint reading. Apprenticeability of a particular craft or trade is best evidenced by its acceptability for registration as a trade by a State Apprenticeship agency or the Federal Bureau of Apprenticeship and Training. Generally, where employees are represented by a union, apprenticeship programs come under the guidance of joint apprenticeship committees composed of representatives of the employers or the employer association and representatives of the employees. These committees may determine need for apprentices in a locality and establish minimum apprenticeship standards of education, experience, and training. In instances where committees do not exist, apprenticeship agreement is made between apprentice and employer, or an employer group. The title APPRENTICE is often loosely used as a synonym for beginner, HELPER (any industry), or TRAINEE (any industry). This practice is technically incorrect and leads to confusion in determining what is meant. Typical classifications for apprentices are BLACKSMITH APPRENTICE (forging); MACHINIST APPRENTICE (machine shop); PLUMBER APPRENTICE (construction).

CLEANER I (any industry)

Maintains premises of commercial, institutional, or industrial establishments, office buildings, hotels and motels, apartment houses, retirement homes, nursing homes, hospitals, schools, or similar establishments in clean and orderly condition, performing the following duties: Cleans rooms, hallways, lobbies, lounges, rest rooms, corridors, elevators, stairways, and locker rooms and other work areas. Sweeps, scrubs, waxes, and polishes floors, using brooms and mops and powered scrubbing and waxing machines. Cleans rugs, carpets, upholstered furniture, and draperies, using vacuum cleaner. Dusts furniture and equipment. Polishes metalwork, such as fixtures and fittings. Washes walls, ceiling, and woodwork. Washes windows, door panels, and sills. Empties wastebaskets, and empties and cleans ashtrays. Transports trash and waste to disposal area. Replenishes bathroom supplies. Replaces light bulbs. Classifications are made according to type of establishment in which work is performed. Typical classifications are CLEANER, COMMERCIAL OR INSTITUTIONAL (any industry); CLEANER, HOSPITAL (medical ser.); CLEANER, HOUSEKEEPING (any industry); CLEANER, INDUSTRIAL (any industry); HOUSECLEANER (hotel & rest.).

DESIGN ENGINEER, FACILITIES (profess. & kin.)

Applies engineering principles to design, modify, or develop facilities, testing, machines, equipment, or processes used in processing or manufacturing products: Analyzes product or equipment specifications and performance requirements to determine designs which can be produced by existing manufacturing or processing facilities and methods. Analyzes engineering proposals, process requirements, and related technical data pertaining to industrial machinery and equipment design. Determines feasibility of designing new plant equipment or modifying existing facilities considering costs, available space, time limitations, company planning, and other technical and economic factors. Provides technical information concerning manufacturing or processing techniques, materials, properties, and process advantages and limitations which affect long range plant and product engineering planning. Compiles and analyzes operational, test, and research data to establish performance standards for newly designed or modified equipment. Studies engineering and technical publications to keep abreast of technological changes and developments in industry. Classifications are made according to type of process or specialization. May use computer-assisted engineering software and equipment.

DESIGN ENGINEER, PRODUCTS (profess. & kin.)

Conducts analytical studies on engineering proposals to develop design for products, such as engines, equipment, machines, associated and subsystems components, and aerospace structures, utilizing and applying engineering principles, research data, and proposed product specifications. Analyzes data to determine feasibility of product proposal. Confers with research personnel to clarify or resolve problems and develops design. Prepares or directs preparation of product or system layout and detailed drawings and schematics. Directs and coordinates manufacturing or building of prototype product or system. Plans and develops experimental test programs. Analyzes test data and reports to determine if design meets functional and performance specifications. Confers with research and other engineering personnel and prepares design modifications as required. Evaluates engineering test results for possible application to development of systems or other uses. Design engineering personnel are classified according to discipline. May use computer-assisted engineering software and equipment.

DRAFTER (profess. & kin.)

Prepares working plans and detail drawings from rough or detailed sketches and notes for engineering or manufacturing purposes according to dimensional specifications: Calculates and lays out dimensions, angles, curvature of parts, materials to be used, relationship of one part to another, and relationship of various parts to entire structure or project, utilizing knowledge of engineering practices, mathematics, building materials, manufacturing technology, and related physical sciences. Creates preliminary or final sketch of proposed drawing, using standard drafting techniques and devices, such as drawing board, T-square, protractor, and drafting machine, or using computer-assisted design/drafting equipment. Modifies drawings as directed by engineer or architect. Classifications are made according to type of drafting, such as electrical, electronic, aeronautical, civil, mechanical, or architectural.

HELPER (any industry)

A worker who assists another worker, usually of a higher level of competence or expertness, by performing a variety of duties, such as furnishing another worker with materials, tools, and supplies; cleaning work area, machines, and equipment; feeding or off bearing machines; holding materials or tools; and performing other routine duties. A HELPER (any industry) may learn a trade but does so without an agreement with employer that such is the purpose of their relationship. Consequently, the title HELPER (any industry) is sometimes used as synonym for APPRENTICE (any industry), a practice that is incorrect technically. A worker whose duties are limited or restricted to one type of activity, such as moving materials from one department to another, feeding machines, removing products from conveyors or machines, or cleaning machines or work areas is not technically a HELPER (any industry) and is classified according to duties performed as MATERIAL HANDLER (any industry); MACHINE CLEANER (any industry); CLEANER, INDUSTRIAL (any industry). A worker who performs a variety of duties to assist another worker is a HELPER (any industry) technically and is classified according to worker assisted as BRICKLAYER HELPER (construction); DRY-CLEANER HELPER (laundry & rel.).

RESEARCH ENGINEER (profess. & kin.) alternate titles: development engineer

Conducts research in a field or specialization of an engineering discipline to discover facts, or performs research directed toward investigation, evaluation, and application of known engineering theories and principles. Plans and conducts, or directs engineering personnel performing, complex engineering experiments to test, prove, or modify theoretical propositions on basis of research findings and experiences of others researching in related technological areas. Evaluates findings to develop new concepts, products, equipment, or processes; or to develop applications of findings to new uses. Prepares technical reports for use by engineering or management personnel for long- and short-range planning, or for use by sales engineering personnel in sales or technical services activities. Classifications are made according to discipline. May use computer-assisted engineering software and equipment.

SALES ENGINEER (profess. & kin.) alternate titles: marketing engineer

Sells chemical, mechanical, electromechanical, electrical, electronic equipment and supplies or services requiring knowledge of engineering and cost effectiveness: Calls on management representatives, such as engineers, architects, or other professional and technical personnel at commercial, industrial, and other establishments in attempt to convince prospective client of desirability and practicability of products or services offered. Reviews blueprints, plans, and other customer documents to develop and prepare cost estimates or projected increases in production from client's use of proposed equipment or services. Draws up or proposes changes in equipment, processes, or use of materials or services which would result in cost reduction or improvement in operations. Provides technical services to clients relating to use, operation, and maintenance of equipment. May draw up sales or service contract for products or services. May provide technical training to employees of client. Usually specializes in sale of one or more closely related group of products or types of services, such as electrical or electronic equipment or systems, industrial machinery, processing equipment or systems, air-conditioning and refrigeration equipment, electric power equipment, or chemical goods.

SALES REPRESENTATIVE (retail trade; wholesale tr.) alternate titles: sales agent; sales associate

Sells products to business and industrial establishments or individual for manufacturer or distributor at sales office, store, showroom, or customer's place of business, utilizing knowledge of product sold: Compiles lists of prospective customers for use as sales leads, based on information from newspapers, business directories, and other sources. Travels throughout assigned territory to call on regular and prospective customers to solicit orders or talks with customers on sales floor or by phone. Displays or demonstrates product, using samples or catalog, and emphasizes salable features. Quotes prices and credit terms and prepares sales contracts for orders obtained. Estimates date of delivery to customer, based on knowledge of own firm's production and delivery schedules. Prepares reports of business transactions and keeps expense accounts. Classifications are made according to products sold as SALES REPRESENTATIVE, FOOD PRODUCTS (wholesale tr.); SALES REPRESENTATIVE, INDUSTRIAL MACHINERY (wholesale tr.).

SALESPERSON (retail trade; wholesale tr.)

Sells merchandise to individuals in store or showroom, utilizing knowledge of products sold: Greets customer on sales floor and ascertains make, type, and quality of merchandise desired. Displays merchandise, suggests selections that meet customer's needs, and emphasizes selling points of article, such as quality and utility. Prepares sales slip or sales contract. Receives payment or obtains credit authorization. Places new merchandise on display. May wrap merchandise for customer. May take inventory of stock. May requisition merchandise from stockroom. May visit customer's home by appointment to sell merchandise on shop-at-home basis. Classifications are made according to products sold as SALESPERSON, AUTOMOBILE ACCESSORIES (retail trade; wholesale tr.); SALESPERSON, BOOKS (retail trade); SALESPERSON, SURGICAL APPLIANCES (retail trade).

SEWING-MACHINE OPERATOR, AUTOMATIC (any industry)

Tends one or more sewing machines that automatically join, reinforce, or decorate material or fabricated articles: Places spool of thread on spindle and draws thread through guides, tensions, and eye of needle. Inserts bobbin into shuttle and draws thread through slot in shuttle wall, or draws thread through guides and looper eyes. May pull boxes of flatfolded material into feeding position or place roll of material on brackets at entry end of machine. May thread material through feed rollers and guides. Depresses pedal or moves lever to raise presser foot; positions article parts or material under needle, using edges, seams, or markings on fabric as guides, and lowers presser foot. Presses pedal or button to start machine that stops as material runs out or thread breaks. May cut material, using scissors, when specified length of cloth has been sewn. Observes sewing operation to detect defective stitching, breaks in thread, or machine malfunction. Rethreads machine, replaces defective or broken needles, using pliers, or notifies SEWING-MACHINE REPAIRER (any industry) of machine malfunction. May remove rolls or trucks of material from discharge end of machine. May select supplies, such as fasteners or thread, according to specifications or color of fabric. May oil machine. May cut excess thread, using scissors or blade attachment on machine. May tend machine equipped with blade attachment that automatically trims selvages. May tend multiple-needle machine that joins two or more layers of cloth to reinforce them. Classifications are usually made according to function of machine as FASTENER-SEWING-MACHINE OPERATOR (any industry); HEMMER, AUTOMATIC (tex. prod., nec); SERGING-MACHINE OPERATOR, AUTOMATIC (any industry); TACKING-MACHINE OPERATOR (any industry).

SEWING-MACHINE OPERATOR, REGULAR EQUIPMENT (any industry)

Operates various sewing machines to join parts of fabricated articles or garments: Places spool of thread on spindle of machine and draws thread through machine guides, tensions, and eye of needle. Inserts bobbin into shuttle and draws thread through slot in shuttle wall, or draws thread through guide and looper eye. Presses knee lever, depresses pedal, or moves hand lever to raise presser foot or spread feed cups. Positions parts to be joined under presser foot and needle and lowers presser foot. Starts, stops, and controls speed of machine, using pedal or knee lever. Guides parts under needle, using fingers and hands, and following edges, seams, guides on machine bed, or markings on
part. Observes stitching to detect defects and notifies supervisor
MACHINE REPAIRER (any industry) when defects are cause
malfunction. May select sewing supplies, such as binding, braid,
tape, thread, or welt, according to specifications or color of mate
excess material or thread, using blade attached to machine or scis
machine, change needles, or secure modifying attachments to ma
fications are usually made according to type of machine, garme
product fabricated, or modifying attachment on machine.

SUPERVISOR (any industry) alternate titles: boss; chief manager; overseer; principal; section chief; section lead

Supervises and coordinates activities of workers engaged in one
cupations: Studies production schedules and estimates worker-hour
for completion of job assignment. Interprets company policies to
enforces safety regulations. Interprets specifications, blueprints, an
to workers, and assigns duties. Establishes or adjusts work proced
production schedules, using knowledge of capacities of machines
ment. Recommends measures to improve production methods, equ
formance, and quality of product, and suggests changes in workin
and use of equipment to increase efficiency of shop, department, or
Analyzes and resolves work problems, or assists workers in solving
lems. Initiates or suggests plans to motivate workers to achieve
Recommends or initiates personnel actions, such as promotions, tr
charges, and disciplinary measures. May train new workers. Maintai
production records. May estimate, requisition, and inspect material
fer with other SUPERVISORS (any industry) to coordinate activitie
ual departments. May confer with workers' representatives to re
ances. May set up machines and equipment. When supervising work
chiefly in one occupation or craft, is required to be adept in the
the workers supervised. When supervising workers engaged in seve
tions, is required to possess general knowledge of the activities inv
sifications are made according to process involved, craft of workers
product manufactured, or according to industry in which work occ
fications are made according to workers supervised.

SUPERVISOR (clerical) alternate titles: section chief; sect

Supervises and coordinates activities of clerical workers. Detern
procedures, prepares work schedules, and expedites workflow. Iss
and oral instructions. Assigns duties and examines work for exactnes
and conformance to policies and procedures. Studies and standardi
dures to improve efficiency of subordinates. Prepares composite re
individual reports of subordinates. Adjusts errors and complaints. Ma
or assist subordinates in performing duties. May keep time and
records, and oversee preparation of payrolls. May hire, train, and
workers. Classifications are made according to type of work or functi
supervised as SUPERVISOR, COMPUTER OPERATIONS (clerical)
010; SUPERVISOR, TELEPHONE CLERKS (tel. & tel.) 239.132-
ING SECTION CHIEF (clerical) 203.137-014.

TEST ENGINEER (profess. & kin.)

Conducts environmental, operational, or performance tests on elect
chanical, electromechanical, general industrial, or experimental prod
as aircraft, automotive equipment, industrial machinery and equipment
and systems: Designs, and directs engineering and technical personn
rication of testing and test-control apparatus and equipment. Directs an
nates engineering activities concerned with development, procurement
tion, and calibration of instruments, equipment, and control devices re
test, telemeter, record, and reduce test data. Determines conditions und
tests are to be conducted and sequences and phases of test operations
and exercises control over operational, functional, and performance
tests. Confers with scientific, engineering, and technical personnel to
testing problems, such as product or system malfunctions, incomplete
and data interpretation, considering such factors as conditions under w
was conducted and instrumentation, procedures, and phase of test used
and record data. Analyzes and interprets test data and prepares technica
for use by engineering and management personnel. Testing engineers a
fied by field of engineering. May use computer-assisted engineering
and equipment.

TERM TITLES AND DEFINITIONS

Terms are titles that are common to a number of jobs that may differ widely in job knowledge required, tasks performed, and job location. Definitions for Terms indicate broadly the jobs that are known by the title and provide information to aid in finding appropriate specific job titles and codes.

ACCOUNTANT, CERTIFIED PUBLIC (profess. & kin.) alternate titles: certified public accountant; c.p.a.

A term applied to an accountant who has met state legal requirements for public practice, and who has been certified by a state as possessing appropriate education and experience as evidenced by passing grade in nationally uniform examination. ACCOUNTANTS, CERTIFIED PUBLIC (profess. & kin.) may be employed by individual establishments, but usually provide a variety of accounting services to general public, either as individual on fee basis or as member or salaried employee of firm which provides such services.

AEROSPACE ENGINEER (profess. & kin.)

A term applied to engineering personnel engaged in research, planning, and development of flight systems and aerovehicles for use in terrestrial atmosphere and outer space. Includes engineering work on aerovehicles, missiles, rockets, space systems research and development, and test and evaluation functions. Classifications are made according to specialization as AERONAUTICAL ENGINEER (aircraft mfg.); ELECTRICAL ENGINEER (profess. & kin.); MECHANICAL ENGINEER (profess. & kin.).

AGRICULTURAL AIDE (agriculture)

A term applied to farm workers who plant, harvest, and cultivate crops and tend animals according to specific instructions of research workers. Classifications are made according to work performed as ANIMAL CARETAKER (any industry); FARMWORKER, POULTRY (agriculture); FARMWORKER, VEGETABLE (agriculture) I.

AGRICULTURIST (profess. & kin.)

A term applied to persons with broad scientific knowledge of theoretical and actual agricultural practices and of livestock, such as varieties, breeds, feeding problems, and propagation of livestock; harvesting and marketing methods; and specialized areas of production. Provides technical and professional advice concerning agriculture to interested persons. Classifications are made according to specialty as AGRONOMIST (profess. & kin.); COUNTY-AGRICULTURAL AGENT (government ser.).

AIR-PRESS OPERATOR (any industry) alternate titles: pneumatic-press operator

A term applied to workers who operate, tend, or feed *power presses* actuated by air pressure to cut, form, forge, straighten, attach, compress, or imprint materials. Classifications are made according to type of press as ASSEMBLY-PRESS OPERATOR (any industry); PLATEN-PRESS FEEDER (print. & pub.); PUNCH-PRESS OPERATOR (any industry) I; PUNCH-PRESS OPERATOR (any industry) II.

AIR-TOOL OPERATOR (construction) alternate titles: pneumatic-tool operator

A term applied to any worker when operating a tool driven by compressed air to perform such work as breaking old pavement, loosening or digging hard earth, trimming bottom and sides of trenches, breaking large rocks, driving sheeting, chipping concrete, trimming or cutting stone, or caulking steel plates. Classifications are made according to kind of work performed as ROCK-DRILL OPERATOR (construction) I; SHEET-PILE-HAMMER OPERATOR (construction); STEEL-PLATE CAULKER (any industry); STONE DRILLER (stonework).

APPLIANCE REPAIRER (any industry)

A term applied to workers engaged in installing, servicing, and repairing electrical or gas appliances. Classifications are made according to type of appliance serviced as ELECTRICAL-APPLIANCE REPAIRER (any industry); ELECTRICAL-APPLIANCE SERVICER (any industry); GAS-APPLIANCE SERVICER (any industry).

APPLICATIONS ENGINEER (profess. & kin.)

A term for engineers concerned with developing new applications for products and systems, and providing technical sales and marketing support to customers, distributors, and sales representatives. Classifications are made according to engineering specialization as ELECTRONICS ENGINEER (profess. & kin.); MECHANICAL ENGINEER (profess. & kin.).

AREA ENGINEER (profess. & kin.)

A term applied to an engineer who is assigned duties within a specific manufacturing area or department of industrial organization. Classifications are made according to field of engineering specialization.

ASSISTANT (any industry) alternate titles: assistant superintendent; assistant supervisor

A term applied to a worker who assists another by performing similar duties and by assuming authority and responsibilities of worker assisted during worker's absence. The same classification should be assigned an ASSISTANT (any industry) as is assigned worker assisted. When duties performed by ASSISTANT (any industry) are clearly subordinate to and different from those of worker assisted, job may be that of HELPER (any industry), or possibly APPRENTICE (any industry) if there is a contractual agreement according to which worker receives training to learn job. See TECHNICIAN (profess. & kin.) for workers assisting engineers and other scientists.

AUTHOR (profess. & kin.)

A term applied to individuals who produce original written works, such as articles, biographies, fiction, plays, poems, and essays. Classifications are made according to type of writing as HUMORIST (profess. & kin.); LIBRETTIST (profess. & kin.); PLAYWRIGHT (profess. & kin.); POET (profess. & kin.); WRITER, PROSE, FICTION AND NONFICTION (profess. & kin.).

BACKFILLER OPERATOR (any industry)

A term applied to a worker who operates power equipment to replace dirt removed from an excavation, such as a pipeline trench or foundation pit. Classifications are made according to type of equipment operated as BULLDOZER OPERATOR (any industry) I; DRAGLINE OPERATOR (any industry); POWER-SHOVEL OPERATOR (any industry).

BELTER (construction)

A term applied to a CEMENT-MASON HELPER (construction) when pushing and pulling a canvas belt or burlap strip back and forth across finished surface of concrete pavement to smooth surface and remove trowel and float marks left by CEMENT MASON, HIGHWAYS AND STREETS (construction).

BRIMMER (hat & cap)

A term for workers who perform any of various operations on brims of hats. Classifications are made according to type of work performed as BRIM-STRETCHING-MACHINE OPERATOR (hat & cap); HYDRAULIC BLOCKER (hat & cap).

BRUSHER (any industry)

A term applied to workers who clean or finish materials or articles. Operations may involve brushing, grinding, or scraping by hand or machine. Classifications are made according to article processed as BISQUE CLEANER (pottery & porc.); WARE DRESSER (pottery & porc.); or method employed as DUSTER (hat & cap); NAPPER TENDER (tex. prod., nec; textile).

BRUSHER (construction; furniture)

A term applied to a PAINTER (construction) or FURNITURE FINISHER (woodworking) when applying coloring, decorative, or protective coats of finish to structures or furniture by means of a brush rather than spray gun.

BUILDING SUPERVISOR (construction)

A term applied to a SUPERVISOR (any industry) who supervises work crew engaged in building construction activities, such as installing electrical, heating, plumbing, and other fixtures and equipment, painting and decorating the building, and other work related to building construction. Classifications are made according to activity of workers supervised. Classifications are SUPERVISOR, ADJUSTABLE-STEEL-JOIST-SETTING (construction); SUPERVISOR, CARPENTERS (construction); CARPENTER-LABOR SUPERVISOR (construction); CLEARING SUPERVISOR (construction); CONCRETING SUPERVISOR (construction); SUPERVISOR, GRADING (construction); SUPERVISOR, REINFORCED-STEEL-PLACING (construction); SUPERVISOR, WATERPROOFING (construction).

BULL-GANG WORKER (construction)

A term applied to any member of a crew engaged in manually lifting or moving heavy objects or materials. Usually these workers exercise considerable physical exertion to accomplish a specified task. Classifications are made according to the nature of the work activity as CONSTRUCTION WORKER (construction) II; LABORER, STORES (any industry); or MATERIAL HANDLER (any industry).

CABLESHIP WORKER (tel. & tel.)

A term applied to officers and crew of cable-laying or cable-repair ships trained in special duties of maneuvering ship and handling submarine cable. Classifications are based on position held as MATE, SHIP (water trans.); ORDINARY SEAMAN (water trans.).

CAISSON WORKER (construction)

A term applied to a CONSTRUCTION WORKER (construction) II or other worker when performing manual labor within compressed-air chamber or caisson in connection with submarine or other foundation work where compressed air is required to keep out water during construction.

CARDROOM WORKER (nonmet. min.; textile)

A term applied to workers in carding department of textile mill who prepare natural or synthetic fibers for spinning into yarn or thread. Classifications are made according to process performed or machine tended as CARD TENDER (nonmet. min.; textile); SLIVER-LAP-MACHINE TENDER (textile).

CARETAKER, FARM (agriculture)

A term applied to workers engaged to live on and care for farm in absence of owner. Classifications are made according to duties performed as ANIMAL CARETAKER (any industry); FARMWORKER, GENERAL (agriculture) II; YARD WORKER (domestic ser.).

CARTOGRAPHIC TECHNICIAN (profess. & kin.)

A term applied to workers who collect, evaluate, and select source materials to be used in constructing maps and charts; and compile, draft, and edit maps and charts of the earth and extraterrestrial bodies. Classifications are made according to area of specialization as DRAFTER, CARTOGRAPHIC (profess. & kin.); PHOTOGRAMMETRIST (profess. & kin.); STEREO-PLOTTER OPERATOR (profess. & kin.).

CATALYST OPERATOR (chemical)

A term applied to workers engaged in preparation of catalysts for use in the manufacture of chemicals, such as butadiene and styrene. Classifications are made according to processing step in production of catalytic material as DISSOLVER OPERATOR (chemical); GRINDER OPERATOR (chemical).

CAULKER (construction; ship-boat mfg.)

A term applied to any worker who makes watertight or airtight joints in pipes, tunnel linings, and steel plates by forcing sealing material into joints with hand or compressed-air-driven caulking tool. Classifications are made according to material being caulked as PIPE CAULKER (construction); STEEL-PLATE CAULKER (any industry); WOOD CAULKER (ship-boat mfg.).

CHEMICAL-DEPARTMENT WORKER (plastic-synth.) alternate titles: chemical-building worker; chemical operator

A term for workers engaged in treating raw materials to produce chemical constituents of synthetic fibers. Classifications are made according to equipment utilized as CHURN TENDER (plastic-synth.); RIPENING-ROOM ATTENDANT (plastic-synth.).

CHEMICAL OPERATOR I (chemical)

A term for workers engaged in tending or controlling equipment used in processing chemical products. Classifications are made according to equipment unit operated as BATCH-STILL OPERATOR (chemical) I; BLEACHER OPERATOR (chemical; soap & rel.); ELECTRIC-CELL TENDER (chemical); or process involved as ABSORPTION OPERATOR (chemical).

CHIMNEY ERECTOR (construction)

A term applied to workers engaged in the construction and repair of brick or concrete chimneys. Classifications are made according to work performed as CHIMNEY BUILDER, BRICK (construction); CHIMNEY BUILDER, REINFORCED CONCRETE (construction); CHIMNEY REPAIRER (construction).

CHLOROPRENE OPERATOR (chemical)

A term applied to workers engaged in production or refining of chlorobutadiene (chloroprene) for polymerization into synthetic rubber. Classifications are made according to equipment-unit operated or tended as CD-REACTOR OPERATOR (chemical); CD-REACTOR OPERATOR, HEAD (chemical).

CIGAR MAKER, LONG-FILLER MACHINE (tobacco)

A term applied to any of the four operators of a fresh-work or long-filler cigar machine. Classifications are made according to work performed as BINDER LAYER (tobacco); FILLER FEEDER (tobacco); FRESH-WORK INSPECTOR (tobacco); WRAPPER LAYER (tobacco).

CLOTH FOLDER (textile)

A term applied to workers engaged in folding cloth for shipment. Classifications are made according to task performed as CLOTH FOLDER, HAND (tex. prod., nec; textile); or according to machine tended as FOLDING-MACHINE OPERATOR (textile).

CLOTHING MAKER (garment) alternate titles: clothing operator; garment maker

A term applied to garment workers engaged in laying out, marking, and cutting material; operating or tending sewing machines or sewing by hand to join, hem, reinforce, or decorate garments and garment parts; and performing finishing operations, such as pressing and folding. For classifications see three-digit groups 781, 782, 785, and 786.

COLOR MIXER (textile)

A term applied to workers engaged in weighing and blending ingredients to make dyestuffs and color for dyeing, printing, or coating of cloth and yarn. Classifications are made according to task performed as COLOR-PASTE MIXER (textile); DYE WEIGHER (any industry); or according to machine tended as GUM MIXER (textile).

COMMERCIAL DECORATOR (any industry)

A term applied to workers who paint designs on commercial products, such as china, novelties, furniture, and tinware. Classifications are made according to work performed as LINER (pottery & porc.); PAINTER, HAND (any in
try).

CONCRETE CHIPPER (construction)

A term applied to a CONCRETE RUBBER (concrete prod.); CONSTRU
TION WORKER (construction) I; or CONSTRUCTION WORKER (const
tion) II when chipping away concrete with chisel driven by hammer or air
to remove bulges, rough spots, and defective concrete from walls, beams,
other parts of concrete structures.

CONCRETE CURER (construction) alternate titles: pavement curer

A term applied to a CONSTRUCTION WORKER (construction) I; or CO
STRUCTION WORKER (construction) II when covering fresh concrete
curing mats (light canvas mats quilted with cotton to retain water), earth, str
or waterproof paper, and sprinkling water over concrete with hose to prev
too rapid drying.

CONCRETE PUDDLER (construction) alternate titles: concrete shoveler; concrete spader; concrete spreader; concrete tamper

A term applied to a CONSTRUCTION WORKER (construction) II;
BORER, CONCRETE-MIXING PLANT (construction); or LABOR
PRESTRESSED CONCRETE (concrete prod.) when spreading wet conc
evenly over subgrade in front of concrete-paving finishing machine or in c
crete forms, using shovel, and tamping it around form and reinforcing mater
using puddling pole, tamper, or concrete vibrator.

CONCRETE SCREEDER (construction)

A term applied to a CEMENT MASON (construction); CONSTRUCTI
WORKER (construction) II; or LABORER, CONCRETE-MIXING PLA
(construction) when leveling surface of fresh concrete to desired shape
grade by pushing screed over surface of concrete.

CONSULTING ENGINEER (profess. & kin.)

A term applied to workers who consult with and advise clients on speciali
engineering matters in particular field of endeavor, such as chemical engine
ing, civil engineering, or mechanical engineering.

COOK, BREAKFAST (hotel & rest.)

A term applied to any COOK (hotel & rest.; medical ser.) or COOK, FA
FOOD (hotel & rest.) when preparing, cooking, and portioning all foods
breakfast menu, such as hot cereals, bacon, and eggs.

COOK, SECOND (hotel & rest.)

A term applied to a SOUS CHEF (hotel & rest.) when acting as assist
to CHEF (hotel & rest.); EXECUTIVE CHEF (hotel & rest.); or SUPE
VISING CHEF (hotel & rest.), performing their duties in their absence. Ty
cally found in large establishments.

COUPLE (any industry)

A term used for designating two jobs or positions found in the same envir
ment or industry where two persons are required to perform duties. The wo
ers are usually furnished board and room or lodging in addition to remunerati
for services performed. Classifications are made according to specific dut
performed by each worker, such as BUTLER (domestic ser.) and COOK (
mestic ser.) or where both workers participate in performing overall duties, su
as maintenance, housekeeping, and managing as MANAGER, MOTEL (ho
& rest.); MANAGER, TOURIST CAMP (hotel & rest.); MANAGER, TRA
ER PARK (hotel & rest.); or as MAINTENANCE REPAIRER, BUILDI
(any industry).

CRANE OPERATOR (any industry) alternate titles: crane engineer

A term applied to workers who operate cranes to hoist, move, and place m
terials and objects, using attachments, such as sling, electromagnet, grapp
hook, bucket, demolition ball, and clamshell. Classifications are made accordi
to type of crane operated as OVERHEAD CRANE OPERATOR (any industr
921.663-010; LOCOMOTIVE-CRANE OPERATOR (any industry) 921.66
038; MONORAIL CRANE OPERATOR (any industry) 921.663-042; TRUC
CRANE OPERATOR (any industry) 921.663-062.

CUTTER (any industry)

A term applied to workers engaged in cutting materials, such as cloth, lea
er, or plastic, by hand or machine, according to pattern, layout lines, or spe
fied dimensions. Classifications are made according to method of cutting
CUTTER, HAND (any industry) I; CUTTER, MACHINE (any industry) I; D
CUTTER (any industry); or according to material cut as LEATHER CUTT
(leather prod.).

DIAMOND CUTTER (jewelry-silver.)

A term applied to workers who prepare diamonds for use in making jewel
Classifications are made according to specific occupations as BRILLIANDEE
LOPPER (jewelry-silver.); DIAMOND CLEAVER (jewelry-silver.); GE
CUTTER (jewelry-silver.); GIRDLER (jewelry-silver.); LATHE OPERATO
(jewelry-silver.).

DIETITIAN (profess. & kin.)

A term applied to persons who possess educational qualifications, work exp
rience, and license or certificate for employment in various fields of dietetic
such as research, consultation, administration, community, and clinical. Class

fications are made according to specialized area of employment as DIETITIAN, CLINICAL (profess. & kin.); DIETITIAN, CONSULTANT (profess. & kin.); DIETITIAN, RESEARCH (profess. & kin.).

DITCH DIGGER (construction) alternate titles: backfiller, hand; laborer, excavation; trench backfiller; trench digger

A term applied to a CONSTRUCTION WORKER (construction) I; CONSTRUCTION WORKER (construction) II; or LABORER, CONCRETE-MIXING PLANT (construction) when digging trenches, footing holes, and similar excavations to specified depth and width, and refilling trenches with excavated material, using pick and shovel.

DIVISION OFFICER (r.r. trans.)

A term applied to railroad officials who administer activities of specified sector of railroad operations, such as segment of line between prescribed points, terminal, classification yard, or other facility. Classifications are made according to operations or facility administered as SUPERINTENDENT, DIVISION (motor trans.; r.r. trans.); YARD MANAGER (r.r. trans.).

DYEING-MACHINE OPERATOR (knitting)

A term applied to workers engaged in dyeing yarn, stockings, and knitted cloth, garments, and tubing. Workers are classified according to material dyed as DYE-REEL OPERATOR (textile); SKEIN-YARN DYER (textile); or according to type of machine utilized as DYE-TUB OPERATOR (knitting).

ECOLOGIST (profess. & kin.)

A term applied to persons who study plants or animals in relation to effect of environmental influences, such as rainfall, temperature, altitude, and kind and quantity of food. Classifications are made according to field of specialization as BOTANIST (profess. & kin.); ZOOLOGIST (profess. & kin.).

ELECTRICAL TESTER (utilities)

A term applied to a worker who carries out prescribed tests on electric power equipment used in production, transmission, distribution, and utilization of electricity, using various types of electrical testing equipment. Classifications are made according to type of equipment tested as RELAY TESTER (utilities); TRANSFORMER TESTER (utilities); or according to purpose of test as VOLTAGE TESTER (utilities).

ENGINEER (profess. & kin.) alternate titles: professional engineer

A term applied to persons who possess educational qualifications, work experience, and legal certification where required as established by engineering schools, employers, and licensing authorities for employment in various fields of engineering. Engineers typically function in one or more activities, such as research, development, design, production, consulting, administration and management, teaching, technical writing, or technical sales and service. Classifications are made according to one or more engineering fields in which individual is qualified for employment, such as aeronautical, electrical, mechanical, chemical, mining, marine, or nuclear engineering.

ENTERTAINER (amuse. & rec.; motion pictureradio-tv broad.) alternate titles: performer; theatrical performer

A term for persons who entertain and amuse audiences by means of an act or skit, dance, reading, feat of skill, songs, or comedy act. Classifications are made according to type of entertainment provided.

ENVIRONMENTAL ENGINEER (profess. & kin.) alternate titles: public-health engineer

A term applied to engineering personnel who utilize engineering knowledge and technology to identify, solve, or alleviate environmental problems. ENVIRONMENTAL ENGINEERS (profess. & kin.) typically apply knowledge of chemical, civil, mechanical, or other engineering discipline to preserve the quality of life by correcting and improving various areas of environmental concern, such as air, soil, or water pollution. However, any engineer whose technology is adaptable to solution of environmental problems, generates a need for environmental impact analysis, or affects the quality of life, is included in this term. This term may be used to denote engineering personnel in specific industries, such as mining and quarrying, petroleum production, or petroleum refining, who function at an administrative level to plan and coordinate pollution monitoring activities within a particular industrial framework. Classifications are made according to area of specialization as INDUSTRIAL-HEALTH ENGINEER (profess. & kin.); NUCLEAR ENGINEER (profess. & kin.); POLLUTION-CONTROL ENGINEER (profess. & kin.); PROJECT MANAGER, ENVIRONMENTAL RESEARCH (profess. & kin.); SANITARY ENGINEER (profess. & kin.).

ENVIRONMENTALIST (profess. & kin.) alternate titles: ecologist

A term applied to workers who study, analyze, and evaluate environmental problems; apply scientific knowledge to prevent pollution; develop solutions to existing environmental problems; and predict possibility of future environmental pollution, including that concerned with air, water, land and land use, noise, and radioactivity. May prepare environmental impact reports or studies detailing types and causes of pollution and probability of future environmental problems. May work with federal, state, and local governmental agencies and community groups in establishing and promoting environmental policies. General classifications are ENVIRONMENTAL ANALYST (profess. & kin.) and POLLUTION-CONTROL ENGINEER (profess. & kin.). Since environmental work activities are interdisciplinary in nature, classifications are also made according to specific fields of specialization, such as civil engineering, soils engineering, chemistry, biology, geophysics, geology, geography, architecture, or forestry. Workers may direct and coordinate activities of other environmental scientists and be classified PROJECT MANAGER, ENVIRONMENTAL RESEARCH (profess. & kin.). Workers may function at the technician level, providing scientific or engineering support to environmental projects, and be classified BIOLOGICAL AIDE (agriculture); LABORATORY TESTER (any industry); POLLUTION-CONTROL TECHNICIAN (profess. & kin.); SCIENTIFIC HELPER (profess. & kin.); or LABORATORY TESTER (any industry).

EQUIPMENT MECHANIC (tel. & tel.)

A term applied to workers who install, relocate, and remove telephone and telegraph equipment. Classifications are made according to type of equipment worked on as TELEGRAPH-PLANT MAINTAINER (tel. & tel.); EQUIPMENT INSTALLER (tel. & tel.).

EXECUTIVE TRAINEE (any industry)

A term for a worker who acts in junior supervisory capacities, such as assistant department manager or staff assistant supervisor in an organization, to learn company policies and procedures, and functions and activities of departments with view toward acquiring knowledge of all business phases. Attends personnel training classes to acquire knowledge of organizational setup, staff and line functions, and long and short range business objectives. Acquires, through on-the-job training in departments, such as credit, sales, engineering, production, and personnel, an overall knowledge of company business functions and activities. Workers are classified according to designation of supervisory personnel assisted or department staff activity.

EXPLOSIVE HANDLER (chemical)

A term applied to any worker who processes, stores, or otherwise handles explosives, observing specified safety regulations to prevent explosions. Classifications are made according to equipment used as BOILING-TUB OPERATOR (chemical); MIXER OPERATOR (chemical) I; POACHER OPERATOR (chemical); or according to material handled as DYNAMITE-CARTRIDGE CRIMPER (chemical); NITROGLYCERIN NEUTRALIZER (chemical); TETRYL-DISSOLVER OPERATOR (chemical).

FARMER (agriculture)

A term used to designate a person who manages a tract of land devoted to production or exploitation of plants and animals. Classifications are made according to duties performed as FARMER, FIELD CROP (agriculture); FARMER, GENERAL (agriculture); FARMER, FRUIT CROPS, BUSH AND VINE (agriculture); LIVESTOCK RANCHER (agriculture); POULTRY FARMER (agriculture).

FARMER, CONTRACT (agriculture)

A term applied to a farmer working on a contract basis for another farmer. Classifications are made according to kind of work contracted for as FARM-MACHINE OPERATOR (agriculture); FARMWORKER, GRAIN (agriculture) I.

FARMER, DRY LAND (agriculture)

A term applied to one who practices diversified or specialized farming and depends on limited rainfall for moisture as opposed to one who irrigates. Classifications are made according to type of crop grown as FARMER, CASH GRAIN (agriculture); FARMER, VEGETABLE (agriculture); FLOWER GROWER (agriculture); HAY FARMER (agriculture).

FARMER, TENANT (agriculture)

A term used to designate a worker who plants, cultivates, and harvests crops or raises animals on rented land for which payment is made in specified amount of money or fixed quantity of crops or animals. Machinery, tools, livestock, labor, seed, and fertilizer are provided by tenant. Classifications are made according to kind of farm rented or crop raised as FARMER, CASH GRAIN (agriculture); FARMER, FIELD CROP (agriculture); FARMER, VEGETABLE (agriculture).

FARMWORKER (agriculture)

A term applied to worker who performs variety of duties on farm including planting, cultivating, and harvesting crops, operating farm equipment, and attending to livestock. Classifications are made according to duties performed as FARM-MACHINE OPERATOR (agriculture); FARMWORKER, POULTRY (agriculture); FARMWORKER, VEGETABLE (agriculture) I; FARMWORKER, VEGETABLE (agriculture) II; HARVEST WORKER, FRUIT (agriculture).

FARMWORKER, SEASONAL (agriculture) alternate titles: wage worker

A term applied to workers who are engaged in farm work on seasonal basis. Workers may specialize in planting, weeding, irrigating, harvesting, or packing crops, but do not follow crop maturities over wide areas. Classifications are made according to duties performed, as FARM-MACHINE OPERATOR (agriculture); HARVEST WORKER, FRUIT (agriculture); HARVEST WORKER, VEGETABLE (agriculture); IRRIGATOR, GRAVITY FLOW (agriculture); PACKER, AGRICULTURAL PRODUCE (agriculture); SORTER, AGRICULTURAL PRODUCE (agriculture; can. & preserv., wholesale tr.); WEEDER-THINNER (agriculture).

FEATURED PLAYER (amuse. & rec.)

A term applied to any stage, motion picture, or television performer who receives prominent billing for an entertainment production. Classifications are made according to type of role as ACTOR (amuse. & rec.); COMEDIAN (amuse. & rec.).

FISHER (fishing & hunt.)

A term applied to any worker who hunts, catches, and traps aquatic animals, such as finfish and shellfish, including mollusks and crustaceans, or gathers aquatic shells, mosses, seaweeds, and sponges. Classifications are made according to equipment used as FISHER, LINE (fishing & hunt.); FISHER, NET (fishing & hunt.); FISHER, POT (fishing & hunt.); SHELLFISH DREDGE OPERATOR (fishing & hunt.); or according to type of aquatic life taken as IRISH-MOSS GATHERER (fishing & hunt.); KELP CUTTER (fishing & hunt.); SPONGE HOOKER (fishing & hunt.).

FISHER, SPONGE (fishing & hunt.)

A term applied to any worker when gathering sponges from the sea. Classifications are made according to method used as FISHER, DIVING (fishing & hunt.); SPONGE HOOKER (fishing & hunt.).

FOREIGN-BROADCAST SPECIALIST (radio-tv broad.)

A term applied to individuals who are involved with planning, writing, producing, and announcing for or acting in radio and television programs produced for broadcast to or in another country. Classifications are made according to work performed, without regard to specific language requirements. Typical classifications include NEWSCASTER (radio-tv broad.); NEWSWRITER (print. & pub.; radio-tv broad.); REPORTER (print. & pub.; radio-tv broad.); SCREEN WRITER (motion picture; radio-tv broad.); TRANSLATOR (profess. & kin.).

FORM CLEANER (construction) alternate titles: form scraper

A term applied to a CARPENTER HELPER, HARDWOOD FLOORING (construction); FORM-SETTER HELPER (construction); LABORER, CONCRETE-MIXING PLANT (construction) or LABORER, CONCRETE PAVING (construction) when cleaning wooden or metal concrete molds, using scraper, pick, shovel, or other tools to remove hardened concrete.

FORM STRIPPER (construction) alternate titles: form puller; form remover; form wrecker; paving-form mover

A term applied to a CARPENTER HELPER, HARDWOOD FLOORING (construction); FORM-SETTER HELPER (construction); or LABORER, CONCRETE PAVING (construction) when removing wooden or steel forms from concrete paving or other concrete work after concrete has hardened.

FRUIT WORKER (agriculture)

A term applied to a worker who cultivates, picks, grades, or packs fruits. Classifications are made according to duties performed as FARMWORKER, FRUIT (agriculture) I; HARVEST WORKER, FRUIT (agriculture); PACKER, AGRICULTURAL PRODUCE (agriculture); SORTER, AGRICULTURAL PRODUCE (agriculture; can. & preserv.; wholesale tr.).

GAS-METER TESTER (utilities)

A term applied to workers performing tasks concerned with dismantling, testing, and repairing gasmeters. Classifications are made according to work performed as GAS-METER MECHANIC (utilities) I; GAS-METER MECHANIC (utilities) II; GAS-METER PROVER (utilities).

GENERATOR OPERATOR (utilities) alternate titles: dynamo operator

A term applied to a worker who controls operation of generator producing electricity for plant processes or for distribution by tending driving engine. Classifications are made according to type of driving engine as DIESEL-PLANT OPERATOR (utilities); TURBINE OPERATOR (utilities).

GOAT-TRUCK DRIVER (agriculture)

A term applied to workers who drive truck or farm equipment to transport empty containers to workers engaged in picking fruit and vegetables and to transport filled containers to shed or warehouse. Classifications are made according to equipment used as FARM-MACHINE OPERATOR (agriculture); TRUCK DRIVER, HEAVY (any industry).

GREIGE-ROOM WORKER (textile) alternate titles: greige-goods worker

A term applied to workers engaged in receiving and processing greige (unfinished) cloth or yarn in textile mill. Classifications are made according to process performed as GOODS LAYER (textile) 781.687-038; GREIGE-GOODS MARKER (textile) 229.587-010; or according to machine tended as GRAY-CLOTH TENDER, PRINTING (textile) 652.686-018.

GROUP LEADER (any industry) alternate titles: leader

A term applied to a worker who takes the lead and gives directions to workers while performing same duties as workers. Regularly performs all tasks of workers in group. Supervisory functions are secondary to the production duties performed and worker receives same classifications as workers led. Distinguished from STRAW BOSS (any industry).

HATTER (hat & cap)

A term for a worker who performs any of the operations connected with making felt hats or strawhats. Classifications are made according to the operation performed as BLOCKER, HAND (hat & cap) I; FUR-BLOWER OPERATOR (hat & cap); HAT-BLOCKING-MACHINE OPERATOR (hat & cap) I; HAT FINISHER (hat & cap).

HEALER (medical ser.)

A term applied to persons engaged in healing arts other than those requ
recognized legal, educational, or experience requirements. Usually restricte
law from performing such medical services as prescribing drugs or treatin
surgery. Generally limited to such types of healing as physical culture and m
tal suggestion.

HIGHWAY SUPERVISOR (construction)

A term applied to a SUPERVISOR (any industry) who supervises w
crews engaged in highway construction activities, such as clearing right-of-w
preparing subgrade, laying road surface, and installing curbing and guardr
Classifications are made according to activity of workers supervised. Typ
classifications are CLEARING SUPERVISOR (construction); CONCRET
SUPERVISOR (construction); SUPERVISOR, GRADING (construction).

INSTALLATION ENGINEER (profess. & kin.)

A term applied to an engineer who specializes in installing equipment. C
sifications are made according to field of engineering specialization.

INSTRUCTOR, MACHINE (any industry)

A term applied to workers who instruct new employees in machine o
ations by giving on-the-job training. Workers are classified according to m
work assignments as MACHINIST (machine shop); WEAVER (nonmet. m
textile). Workers with supervisory duties are classified as SUPERVISOR (
industry).

INSTRUMENTATION ENGINEER (profess. & kin.)

A term applied to a worker who designs and supervises operation and m
tenance of electrical, mechanical, and thermal instruments and control eq
ment necessary for safe and efficient operation of industrial plant. Classi
tions are made according to field of engineering specialization.

JOB-PRESS OPERATOR (print. & pub.)

A term applied to workers engaged in operation of printing presses used
printing small quantities, usually one sheet at a time, requiring frequent cha
of press make-ready. Classifications are made according to type of press o
ated as CYLINDER-PRESS OPERATOR (print. & pub.) 651.362-010; PL
EN-PRESS OPERATOR (print. & pub.) 651.362-018.

JOURNEY WORKER (any industry)

A term applied to a worker who has completed a specified training prog
as an APPRENTICE (any industry) in learning a trade or craft, or who can
written proof of a specified number of years of qualifying experience for
trade or craft.

KETTLE TENDER (any industry)

A term applied to a worker who melts, cooks, or dyes material or substa
in a container heated by electricity, flame, or steam. Workers are usually cla
fied according to material or substance treated as COOK, KETTLE (bever
can. & preserv.; grain-feed mills); DIPPER (any industry); RENDERI
EQUIPMENT TENDER (meat products).

LABORATORY CHIEF (profess. & kin.) alternate titles: direct laboratory

A term applied to persons who serve as administrative heads of chemi
physical, electrical, biological, or other scientific laboratories. Classificat
are made according to particular science or branch of engineering as CHE
CAL LABORATORY CHIEF (profess. & kin.).

LABORATORY WORKER (any industry)

A term for any worker in a laboratory performing routine or special t
or research. Classifications are made according to type of work as B
CHEMIST (profess. & kin.); FOOD TESTER (any industry); LABORATO
TESTER (any industry); SCIENTIFIC HELPER (profess. & kin.).

LAUNDRY HAND (laundry & rel.)

A term applied to any laundry worker. Classifications are made accor
to work performed as FLATWORK FINISHER (laundry & rel.); SH
PRESSER (laundry & rel.); WASHER, MACHINE (laundry & rel.).

LINGUIST (profess. & kin.)

A term applied to any person who has become skilled in languages, part
larly living languages. Classifications are made according to occupation
which this skill is utilized, as INTERPRETER (profess. & kin.); TRA
LATOR (profess. & kin.).

LOGGER (logging)

A term applied to any worker engaged in logging. Classifications are m
according to type of activity as BUCKER (logging); CHOKE SETTER (
ging); FALLER (logging) I; FALLER (logging) II; LIMBER (loggi
LOGGER, ALL-ROUND (logging); RIGGING SLINGER (logging).

LOG-YARD CRANE OPERATOR (saw. & plan.)

A term applied to LOCOMOTIVE-CRANE OPERATOR (any indust
TRACTOR-CRANE OPERATOR (any industry); or TRUCK CRANE OPER
TOR (any industry) when operating a crane to lift and move logs in log stor
yard.

MACHINE ADJUSTER (any industry) alternate titles: adjuster

A term applied to workers who set up and adjust a battery of machines
signed to perform a particular function in a manufacturing process. Classifi

tions are made according to type of material or article produced as MACHINE SET-UP OPERATOR, PAPER GOODS (paper goods); ROPE-MACHINE SETTER (tex. prod., nec).

MACHINE RUNNER (mine & quarry) alternate titles: mining-machine operator

A term applied to workers who operate one or more mining machines to drill, undercut, load, and continuously mine in an underground mine. Classifications are made according to specific duties as CONTINUOUS-MINING-MACHINE OPERATOR (mine & quarry); CUTTER OPERATOR (mine & quarry); DRILLING-MACHINE OPERATOR (mine & quarry); LOADING-MACHINE OPERATOR (mine & quarry).

MAINTENANCE WORKER (any industry) alternate titles: service worker; trouble shooter

A term applied to workers engaged in repairing and maintaining buildings, machinery, and electrical and mechanical equipment in commercial, governmental, or industrial establishments. Classifications are made according to trade as CARPENTER, MAINTENANCE (any industry); ELECTRICIAN, MAINTENANCE (any industry); or according to structure repaired or maintained as BOILERHOUSE MECHANIC (any industry); MAINTENANCE REPAIRER, BUILDING (any industry); or according to machinery and equipment repaired or maintained as CELLOPHANE-CASTING-MACHINE REPAIRER (plastic prod.); ELEVATOR REPAIRER (any industry).

MANAGER, BAR (hotel & rest.)

A term applied to a BARTENDER (hotel & rest.) or WINE STEWARD/STEWARDESS (hotel & rest.) when supervising personnel engaged in mixing and serving drinks and performing related duties, such as purchasing supplies for the bar.

MANAGER, FACILITATING SERVICES (any industry)

A term applied to workers in industrial organizations who plan, organize, and direct overhead services, such as employment, public relations, and safety. Classifications are made according to work performed as MANAGER, EMPLOYMENT (profess. & kin.); MANAGER, PERSONNEL (profess. & kin.); PUBLIC RELATIONS REPRESENTATIVE (profess. & kin.); SAFETY ENGINEER (profess. & kin.).

MANAGER, SERVICE ESTABLISHMENT (any industry) alternate titles: superintendent, service establishment

A term applied to workers who manage an organization that renders service to public, such as business-service, repair-service, or personal-service establishment. Typical classifications are MANAGER, BARBER OR BEAUTY SHOP (personal ser.); MANAGER, MARINE SERVICE (ship-boat mfg.); MANAGER, RETAIL STORE (retail trade); MANAGER, SERVICE DEPARTMENT (wholesale tr.); SUPERVISOR, CAB (motor trans.).

MASON (construction)

A term applied to any worker when working with artificial stone, brick, concrete, stone, and the like. Classifications are made according to material worked with as BRICKLAYER (construction); CEMENT MASON (construction); STONEMASON (construction).

MASON HELPER (construction)

A term applied to a BRICKLAYER HELPER (construction); CEMENT-MASON HELPER (construction); or STONEMASON HELPER (construction) when assisting one of the masons.

MASTER (water trans.) alternate titles: captain; skipper

A term applied to a worker who commands a self-propelled watercraft. May be licensed by U.S. Coast Guard depending on type and tonnage of craft and water navigated. Classifications are made according to type of watercraft commanded as CAPTAIN, FISHING VESSEL (fishing & hunt.); DREDGE CAPTAIN (water trans.); FERRYBOAT CAPTAIN (water trans.); MASTER, RIVERBOAT (water trans.); MASTER, SHIP (water trans.); TUGBOAT CAPTAIN (water trans.).

MIGRANT WORKER (agriculture)

A term applied to a worker who moves about the country, working as member of farm crew to grow and harvest vegetables, grains, and fruits. Usually contracts for work with MIGRANT LEADER (agriculture) and receives pay, subsistence, and transportation from same. Drives farm equipment to plow, plant, or cultivate crops. Plants, weeds, thins, picks, washes, ties, grades, or packs fruits and vegetables by hand or with handtools. Classifications are made according to duties performed as FARM-MACHINE OPERATOR (agriculture); HARVEST WORKER, FRUIT (agriculture); HARVEST WORKER, VEGETABLE (agriculture); IRRIGATOR, GRAVITY FLOW (agriculture); WEEDER-THINNER (agriculture).

MILLER (any industry)

A term applied to a worker who grinds material, such as coal, cocoa beans, coffee, grain, or ore, using a machine. Classifications are made according to material ground or method employed as MILLER, WET PROCESS (grain-feed mills); WASH-MILL OPERATOR (chemical).

MILL HAND (any industry)

A term applied to workers performing various duties in a mill. Classifications are made according to type of machine operated or work performed as MILL OPERATOR (any industry); ROD-MILL TENDER (cement; smelt. & refin.); ROUGHER (steel & rel.); WASH-MILL OPERATOR (chemical).

MILL HAND (grain-feed mills)

A term applied to workers in a grain or feed mill whose duties require no previous experience and who work under the direction of other workers. Classifications are made according to tasks performed or worker assisted as BIN CLEANER (beverage; grain-feed mills); CUT-IN WORKER (grain-feed mills).

MILL WORKER (any industry)

A term applied to a worker who grinds and pulverizes materials, cleans and smooths articles and materials, treats hides and skins, or extracts metallic constituents from ore. Classifications are made according to machine or method used as FLOTATION TENDER (smelt. & refin.); TANNING DRUM OPERATOR (leather mfg.); TUMBLER OPERATOR (any industry).

MINER II (mine & quarry)

A term applied to any mine worker. Classifications are made according to work performed as CUTTER OPERATOR (mine & quarry); STRIPPING-SHOVEL OPERATOR (mine & quarry); TIMBER FRAMER (mine & quarry). In some areas the term MINER indicates only workers who have passed qualifying examinations for state miner's certificate.

MODEL MAKER II (any industry)

A term applied to workers who apply trade knowledge and skills to construct full scale experimental working models of electrical, electronic, or mechanical machines, controls, or tools, or to construct scale models for testing or display, or models to form molds for cast products. Workers are classified according to trade skill and knowledge applied as CONCRETE SCULPTOR (concrete prod.); PATTERNMAKER, WOOD (foundry); TOOL-AND-DIE MAKER (machine shop).

MUNICIPAL-SERVICES SUPERVISOR (government ser.)

A term for supervisory workers engaged in the maintenance of a public works program. Classifications are made according to municipal service rendered as SNOW-REMOVING SUPERVISOR (government ser.).

MUSEUM INTERN (museums)

A term applied to individuals who perform curatorial, administrative, educational, conservation, or research duties in museum or similar institution, to assist professional staff in utilization of institution's collections and other resources and to gain practical experience and knowledge to enhance personal qualifications for career. Classifications are made according to assignment which is usually based upon academic specialization as CRAFT DEMONSTRATOR (museums) 109.364-010; PAINTINGS RESTORER (profess. & kin.) 102.261-014; RESEARCH ASSISTANT (profess. & kin.) 109.267-010; RESEARCH ASSOCIATE (museums) 109.067-014.

NATURALIST (profess. & kin.)

A term applied to persons specializing in study of plants or animals. Classifications are made according to division studied as BOTANIST (profess. & kin.); ZOOLOGIST (profess. & kin.).

NEEDLE-TRADE WORKER (garment)

A term applied to workers engaged in sewing by hand in garment manufacturing establishment. Classifications are made according to type of sewing performed as BASTER, HAND (garment); FELLER, HAND (garment); SEWER, HAND (any industry).

NUMISMATIST (profess. & kin.)

A term for persons who specialize in science and collection of rare coins, medals, tokens, and paper money. Persons engaged in sale of coins are classified as SALESPERSON, STAMPS OR COINS (retail trade; wholesale tr.); those engaged in management of collections are classified CURATOR (museums).

NURSE, PROFESSIONAL (medical ser.) alternate titles: nurse, certified; nurse, licensed; nurse; nurse, registered

A term applied to persons meeting the educational, legal, and training requirements to practice as professional nurses, as required by a State Board of Nursing. Performs acts requiring substantial specialized judgment and skill in observation, care, and counsel of ill, injured, or infirm persons and in promotion of health and prevention of illness. Classifications are made according to type of nursing activity engaged in as DIRECTOR, NURSING SERVICE (medical ser.); NURSE, GENERAL DUTY (medical ser.); NURSE, PRIVATE DUTY (medical ser.).

PACE SETTER (agriculture)

A term applied to a lead worker engaged in picking fruit or truck crops, who picks at specified rate that determines production of workers. Classifications are made according to workers involved or crop picked as FARMWORKER, VEGETABLE (agriculture) II; HARVEST WORKER, FRUIT (agriculture).

PAINT GRINDER (paint & varnish) alternate titles: grinder operator; stock grinder

A term applied to workers engaged in reducing and dispersing dry particles in liquid vehicle for use in producing paint and related products. Classifications are made according to type of equipment used as ROLLER-MILL OPERATOR (paint & varnish); STONE-MILL OPERATOR (paint & varnish).

PHILATELIST (profess. & kin.)

A term applied to a worker who collects and studies stamps, stamped envelopes, and related material. Persons employed in sale or purchase of stamps are classified as MANAGER, RETAIL STORE (retail trade); SALESPERSON, STAMPS OR COINS (retail trade; wholesale tr.); those in charge of museum collections are classified CURATOR (museums).

PHYSICIAN, RESEARCH (medical ser.)

A term applied to persons with degree of doctor of medicine who conduct medical experiments and investigations to discover causes of various diseases; facts concerning diseases; and remedies for diseases. Classifications are made according to specialty.

PILE DRIVER (construction)

A term applied to a HOLDER, PILE DRIVING (construction); LABORER, PILE DRIVING, GROUND WORK (construction); LOFT WORKER, PILE DRIVING (construction); or RIGGER (construction) when driving piles.

PIPE CUTTER (construction)

A term applied to a PIPE FITTER (construction); PIPE-FITTER APPRENTICE (construction); PIPE-FITTER HELPER (construction); PLUMBER (construction) or PLUMBER APPRENTICE (construction) when cutting pipe for use in an air, water, steam, gas, or waste disposal system.

PIPELINE SUPERVISOR (construction)

A term applied to a SUPERVISOR (any industry) who supervises work crews engaged in pipeline-construction activities, such as clearing pipeline right-of-way, laying pipe, and backfilling ditches. Classifications are made according to activity of workers supervised. Typical classifications are CLEARING SUPERVISOR (construction); SUPERVISOR, LABOR GANG (construction).

PIPE THREADER, HAND (construction)

A term applied to a PIPE FITTER (construction); PIPE-FITTER APPRENTICE (construction); PIPE-FITTER HELPER (construction); PLUMBER (construction); PLUMBER APPRENTICE (construction); or PLUMBER HELPER (construction) when threading pipe.

PLANTER (agriculture)

A term applied to farmers, usually large-scale entrepreneurs, who specialize in growing cotton, rice, tobacco, or other crops. Classifications are made according to crop as COTTON GROWER (agriculture); PEANUT FARMER (agriculture); SOYBEAN GROWER (agriculture); TOBACCO GROWER (agriculture).

POLYMERIZATION OPERATOR (chemical; plastic-synth.)

A term applied to workers engaged in polymerization of chlorobutadiene into neoprene rubber, including preparation of constituent solutions. Classifications are made according to equipment operated as KETTLE OPERATOR (plastic-synth.).

POWER-PRESS OPERATOR (any industry)

A term applied to workers who operate, tend, or feed one or more power driven presses that cut, bend, punch, trim, compress, forge, rivet, emboss, upset, or force together materials to shape, fabricate, or assemble them by action of dies mounted on bed and ram of machine. Material may be manually or automatically fed into such press. Classifications are made according to function of machine as ASSEMBLY-PRESS OPERATOR (any industry); COMPRESSION-MOLDING-MACHINE TENDER (plastic prod.); EMBOSSING-PRESS OPERATOR (any industry); FORGING-PRESS OPERATOR (forging) I; FORGING-PRESS OPERATOR (forging) II; PUNCH-PRESS OPERATOR (any industry) I; PUNCH-PRESS OPERATOR (any industry) II; PUNCH-PRESS OPERATOR (any industry) III.

PRECIPITATOR OPERATOR (smelt. & refin.)

A term applied to workers engaged in precipitating aluminum hydroxide from rich liquor in the process of extracting alumina from bauxite. Classifications are made according to work performed as BOTTOM-PRECIPITATOR OPERATOR (smelt. & refin.); TOP-PRECIPITATOR OPERATOR (smelt. & refin.).

PRECISION-OPTICAL WORKER (optical goods)

A term applied to workers engaged in preparation of precision glass elements, working to close tolerances. Classifications are made according to work performed as OPTICAL-GLASS ETCHER (optical goods); OPTICAL-GLASS SILVERER (optical goods); PRECISION-LENS GRINDER (optical goods); PRECISION-LENS POLISHER (optical goods).

PRESS FEEDER (print. & pub.)

A term applied to workers who feed paper into printing presses. Classifications are made according to type of press fed.

PRESS OPERATOR (print. & pub.)

A term applied to workers who make ready and operate printing presses. Classifications are made according to type of press operated as CYLINDER-PRESS OPERATOR (print. & pub.) 651.362-010; OFFSET-PRESS OPERATOR (print. & pub.) I 651.382-042; PLATEN-PRESS OPERATOR (print. & pub.) 651.362-018.

PUBLIC-UTILITIES ENGINEER (profess. & kin.)

A term for persons who perform professional engineering work in field of regulation and control of public and private electric, natural gas, and water utilities. Classifications are made according to area of specialization, such as CIVIL ENGINEER (profess. & kin.); ELECTRICAL ENGINEER (profess. & kin.); ELECTROLYSIS-AND-CORROSION-CONTROL ENGINEER (profess. kin.); POWER-DISTRIBUTION ENGINEER (utilities); RATE ENGINE (profess. & kin.); VALUATION ENGINEER (profess. & kin.).

PUBLISHER (print. & pub.)

A term applied to the individual who publishes printed materials, such newspapers, books, and magazines, and directs marketing of these produc Classifications are made according to executive capacity in which engaged EDITOR, BOOK (print. & pub.) 132.067-014; EDITOR, MANAGING, NEW PAPER (print. & pub.) 132.017-010; MANAGER, CIRCULATION (print. pub.) 163.167-014; PRESIDENT (any industry) 189.117-026.

RAILROAD SUPERVISOR (construction)

A term applied to a SUPERVISOR (any industry) who supervises wo crews engaged in railroad construction activities, such as clearing railroad rig of-way, installing pipe culverts, and laying ties and rails. Classifications a made according to activity of workers supervised. Typical classifications a CLEARING SUPERVISOR (construction); TRACK-LAYING SUPERVISO (construction).

REAMER (construction)

A term applied to a RIVETER HELPER (any industry); or RIVETE PNEUMATIC (any industry) when shaping misaligned rivet holes in structur steel members, using a hand or electrically powered reaming tool.

REHABILITATION THERAPIST (profess. & kin.)

A term applied to persons engaged in restoring physical, emotional, soc and economic effectiveness of medical patients and other disabled perso Classifications are made according to type of therapy applied as CORRECTI THERAPIST (medical ser.); TEACHER, EMOTIONALLY IMPAIRED (e cation); MANUAL-ARTS THERAPIST (medical ser.); MUSIC THERAPI (medical ser.); OCCUPATIONAL THERAPIST (medical ser.); ORIENTATIO AND MOBILITY THERAPIST FOR THE BLIND (education; medical s nonprofit org.); PHYSICAL THERAPIST (medical ser.); RECREATION THERAPIST (medical ser.).

RELIEF WORKER (tobacco) alternate titles: packing-machine relief-operator-and-salvager; utility hand

A term applied to workers who relieve other employees engaged in pack or export department of cigarette manufacturing firm. Classifications are ma according to work performed as CARTON-PACKAGING-MACHINE OPER TOR (tobacco); CIGARETTE-MAKING-MACHINE CATCHER (tobacc CIGARETTE-PACKING-MACHINE OPERATOR (tobacco).

RESEARCH ASSOCIATE (profess. & kin.)

A term applied to persons who conduct independent research in scienti legal, medical, political, academic, or other specialized fields. Individuals wo ing at this level are required to have a graduate degree. Classifications are m according to field of specialization as AERODYNAMIST (aircraft m 002.061-010; METALLURGIST, PHYSICAL (profess. & kin.) 011.061-0 MICROBIOLOGIST (profess. & kin.) 041.061-058; PATHOLOGIST (med ser.) 070.061-010; POLITICAL SCIENTIST (profess. & kin.) 051.067-010.

RIVER-AND-HARBOR SUPERVISOR (construction)

A term applied to a SUPERVISOR (any industry) who supervises w crews engaged in activities, such as deepening and widening harbors, canaliz streams, and impounding waters. Classifications are made according to acti of workers supervised. Typical classifications are BANK BOSS (constructio CONCRETING SUPERVISOR (construction); SUCTION-DREDGE-PI LINE-PLACING SUPERVISOR (construction).

ROLL OPERATOR II (any industry)

A term applied to workers who operate machines to form, forge, bend, straighten hot or cold metal by passing metal between or under revolving inders. Typical classifications are ANGLE-ROLL OPERATOR (any indust FLANGING-ROLL OPERATOR (any industry); FORMING-ROLL OPER TOR (any industry) II; ROLL-FORMING-MACHINE OPERATOR (any ind try) II; STRAIGHTENING-ROLL OPERATOR (any industry).

SAILOR (water trans.) alternate titles: sailor-merchant mariner

A term applied to workers aboard seagoing vessels. Classifications are m according to duties performed as MARINE OILER (water trans.); ORDINA SEAMAN (water trans.).

SALESPERSON, CONTINGENT (retail trade) alternate titles: relief clerk; salesperson, part time; salesperson, relief

A term applied to a SALESPERSON (retail trade; wholesale tr.) who wo only when called and works for period shorter than work period of reg SALESPERSONS (retail trade; wholesale tr.). May be employed for speci number of hours or days per week or month.

SAND HOG (construction)

A term applied to persons working under compressed air as in caisson tunnel. Classifications are made according to work performed as LOCK T DER (construction) I; MINER (construction); MUCKER (construction).

SAWYER (stonework)

A term applied to workers engaged in cutting stone with power-driven sa The techniques required and types of machines vary considerably. Classif tions are made according to type of saw as CIRCULAR SAWYER, STO (stonework); GANG SAWYER, STONE (stonework); WIRE SAWYER (stonework).

SCIENTIST (profess. & kin.)

A term applied to a worker engaged in scientific studies and research. Classifications are made according to scientific specialties, such as ASTRONOMER (profess. & kin.); BIOLOGIST (profess. & kin.); MATHEMATICIAN (profess. & kin.); PHYSICIST (profess. & kin.); ZOOLOGIST (profess. & kin.).

SECOND HAND (textile)

A term applied to supervisors who supervise part of department in textile mill. Classifications are made according to name of department in which supervision is exercised as SUPERVISOR, PREPARATION DEPARTMENT (textile); SUPERVISOR, WINDING AND TWISTING DEPARTMENT (textile).

SECTION HAND (textile)

A term applied to supervisors, usually subordinate to SECOND HAND (textile), who supervise part of department in textile mill. Classifications are made according to name of department in which supervision is exercised as SUPERVISOR, PREPARATION DEPARTMENT (textile); SUPERVISOR, WINDING AND TWISTING DEPARTMENT (textile).

SERGING-MACHINE OPERATOR (any industry) alternate titles: edging-machine operator; overcasting-machine operator; overedge-machine operator; overlock-machine operator; overseaming-machine operator; serger

A term applied to sewing-machine operators when operating machine that trims raw edges from fabric and simultaneously binds trimmed edge with an overlock stitch. For classification of sewing-machine operators, see three-digit groups 786-787.

SEWER-AND-WATERWORKS SUPERVISOR (construction)

A term applied to a SUPERVISOR (any industry) who supervises work crews engaged in sewer-and-waterworks-construction activities, such as clearing right-of-way, loading materials, mixing concrete, and laying pipe. Classifications are made according to activity of workers supervised. Typical classifications are CLEARING SUPERVISOR (construction); CONCRETE-BATCHING AND MIXING-PLANT SUPERVISOR (construction); LABOR-CREW SUPERVISOR (construction; utilities); MATERIAL CREW SUPERVISOR (construction; mfd. bldgs.).

SHARECROPPER (agriculture)

A term applied to a farmer who plants, cultivates, and harvests crops on land owned by another for specified share of receipts of sale of crop. Usually equipment, seed, and fertilizer are provided by land owner who may also specify crops to be grown and when planting and harvesting will take place. Classifications are made according to crop grown as FARMER, FIELD CROP (agriculture); FARMER, VEGETABLE (agriculture).

SHED WORKER (agriculture)

A term applied to farm workers when they are working in a building or lean-to which provides protection from weather or which is used for drying and storing crops. Classifications are made according to kind of crop, such as HARVEST WORKER, FIELD CROP (agriculture); HARVEST WORKER, VEGETABLE (agriculture); or according to duties performed as PACKER, AGRICULTURAL PRODUCE (agriculture); SORTER, AGRICULTURAL PRODUCE (agriculture; can. & preserv.; wholesale tr.); SUPERVISOR, SHED WORKERS (agriculture).

SHOP STEWARD (any industry)

A term applied to a worker who negotiates with company officials as a representative of fellow employees for the protection of their working interests or contractual rights. Acts as representative for other workers in the settlement of individual grievances. May keep overtime records. Workers whose union functions are incidental to their production work should be classified according to the production or administrative duties performed. Workers who spend full time in union activities should be classified as BUSINESS REPRESENTATIVE, LABOR UNION (profess. & kin.).

SMELTERY WORKER (smelt. & refin.)

A term applied to any worker in a smeltery where ores are melted to separate and recover the metals contained therein and the latter refined to a state of purity demanded for commercial use. Classifications are made according to type of activity or equipment used as FLOTATION TENDER (smelt. & refin.); KETTLE TENDER (smelt. & refin.) I; RAW SAMPLER (smelt. & refin.).

SOCIAL-WORK CONSULTANT (profess. & kin.)

A term applied to workers who render advisory service to agencies, groups, or individuals in fields of social work, employing their knowledge and skills gained through training, graduate-level education, and experience. Classifications are made according to areas of social work in which training, education, and experience have been acquired.

SOCIAL WORKER (profess. & kin.)

A term applied to a worker performing social service functions, based on university-level education in social-welfare human services, or equivalency, in a public or voluntary social welfare agency, organization, or department, or in other settings, as in housing projects or in schools. Classifications are made according to work performed as SOCIAL GROUP WORKER (social ser.); SOCIAL WORKER, DELINQUENCY PREVENTION (social ser.); SOCIAL WORKER, PSYCHIATRIC (profess. & kin.).

SOLDERER, SILVER (welding)

A term applied to workers who braze together components of metal assemblies with a brazing alloy, asually containing silver (hard solder), by any brazing method. Workers are classified according to function or equipment used as BRAZER, ASSEMBLER (welding); BRAZER, CONTROLLED ATMOSPHERIC FURNACE (welding); BRAZER, INDUCTION (welding); BRAZER, REPAIR AND SALVAGE (welding); BRAZING-MACHINE OPERATOR (welding).

SPECIAL-DELIVERY DRIVER (any industry)

A term applied to TRUCK DRIVER, HEAVY (any industry); or TRUCK DRIVER, LIGHT (any industry) when delivering orders that cannot be handled by regular delivery system because order must reach customer immediately, customer's address is not on regular route, or for other reasons.

SPECIALTY CHEF (hotel & rest.) alternate titles: chef, department; chef, station

A term applied to the head cook of a station when specializing in a given type of cooking, such as frying foods or cooking sauces. Classifications are made according to specialty as SOUS CHEF (hotel & rest.).

SPINNING-ROOM WORKER (plastic-synth.)

A term for workers employed in the spinning department of a synthetic-fiber plant. Classifications are made according to work performed as BOX TENDER (plastic-synth.); PUMP TESTER (plastic-synth.); SPINNER (plastic-synth.); SPINNING-BATH PATROLLER (plastic-synth.); TEMPERATURE-CONTROL INSPECTOR (plastic-synth.).

SPONSOR (retail trade) alternate titles: instructor, training; coach

A term applied to MANAGER, DEPARTMENT (retail trade), his or her assistant, or to experienced salesperson who instructs and supervises new sales employees in store system, care and location of stock, merchandise information, and selling methods.

SPREADER II (any industry)

A term applied to a worker who lays out, coats, places, or spreads material to be cut, joined, stretched, or smoothed. Classifications are made according to material spread as CANDY SPREADER (sugar & conf.); FLATWORK FINISHER (laundry & rel.).

STAGE HAND (amuse. & rec.) alternate titles: stage technician

A term applied to all workers backstage of theater who handle props, curtains, or electrical equipment. Classifications are made according to type of activity in which engaged as PROPERTY COORDINATOR (amuse. & rec.; radio-tv broad.).

STILL OPERATOR (any industry)

A term applied to a worker who operates or tends equipment for distilling, purifying, reclaiming, or refining materials. Usually designated according to type of duties performed as BATCH-STILL OPERATOR (chemical) II; DISTILLER (chemical) I; DISTILLER (chemical) II; and REFINERY OPERATOR (petrol. refin.).

STITCHER, MACHINE (boot & shoe)

A term applied to workers who operate single, double, or multiple needle standard or special stitching machines to join, decorate, or reinforce shoe parts. Classification are made according to type of machine used as STITCHER, SPECIAL MACHINE (boot & shoe); STITCHER, STANDARD MACHINE (boot & shoe).

STONE MECHANIC (stonework) alternate titles: stone finisher

A term applied to a worker who is skilled in layout work and the use of handtools and machines for cutting, polishing and sandblasting building and monument stone. Classifications should be made according to work performed as SANDBLASTER, STONE (stonework); STONECUTTER, HAND (stonework); STONECUTTER, MACHINE (stonework); STONE POLISHER, HAND (stonework).

STONE RENOVATOR (construction)

A term applied to a BRICKLAYER (construction); CEMENT MASON (construction); PLASTERER (construction); or STONEMASON (construction) when resurfacing stone to restore and renovate building.

STRAW BOSS (any industry) alternate titles: gang leader; group leader; head; pacer; pusher

A term applied to a worker who takes the lead in a construction or laboring crew and is selected to expedite the work of the crew, usually small in number. Regularly performs all duties of workers in crew. Explains tasks to new workers. The supervisory functions are incidental to the duties performed as a member of the crew. Classifications are made according to type of work performed by crew.

STRIPPER (any industry)

A term applied to a worker who dismantles or separates articles or material, removes coverings, trims and decorates products, or otherwise works with strips of material. Classifications are made according to article or material processed as CARD STRIPPER (textile); COVER STRIPPER (paper goods); FORM STRIPPER (concrete prod.; construction); FRAME STRIPPER (soap & rel.).

STUD-DRIVER OPERATOR (construction) alternate titles: cartridge-actuated-tool operator; explosive-actuated-tool operator; powder-actuated-tool operator

A term applied to a CARPENTER (construction) or ELECTRICIAN (construction) when driving steel studs into concrete, steel, or masonry base to anchor construction materials and equipment, using powder-actuated stud driver.

STYRENE OPERATOR (chemical)

A term applied to workers in a styrene manufacturing plant who operate or tend panel-controlled equipment, such as stills and catalytic converter units, to facilitate production of product meeting plant standards. Classifications are made according to equipment operated or tended as CATALYTIC-CONVERTER OPERATOR (chemical); CONTINUOUS-STILL OPERATOR (chemical).

SWITCHYARD WORKER (r.r. trans.)

A term applied to workers when switching or supervising workers engaged in switching cars within yard of railroad, industrial plant, quarry, construction project, or other similar location for purpose of loading, unloading, making up, and breaking up of trains. Classifications are made according to type of activity engaged in as CONDUCTOR, YARD (r.r. trans.); SWITCH TENDER (r.r. trans.); YARD COUPLER (r.r. trans.).

TAILINGS MACHINERY TENDER (smelt. & refin.)

A term applied to worker who tends equipment used to dispose of tailings (worthless material) after valuable minerals have been removed by ore-dressing processes. The equipment used varies with each individual mill, with pumps, bucket elevators, desliming cones, thickeners, launders, and settling tanks commonly being used. Usually designated according to type of equipment tended as CLASSIFIER TENDER (smelt. & refin.).

TEACHER, HOME (education)

A term applied to a TEACHER, ELEMENTARY SCHOOL (education) or a TEACHER, SECONDARY SCHOOL (education) who instructs students unable to attend classes because of confinement at home or hospital.

TECHNICIAN (profess. & kin.) alternate titles: engineering aide; technical aide; technical assistant

A term applied to a worker who works in direct support of ENGINEERS (profess. & kin.) or SCIENTISTS (profess. & kin.), utilizing theoretical knowledge of fundamental scientific, engineering, mathematical, or draft design principles. Solves practical problems encountered in fields of specialization, such as those concerned with development of electrical and electronic circuits, and establishment of testing methods for electrical, electronic, electromechanical, and hydromechanical devices and mechanisms; application of engineering principles in solving design, development, and modification problems of parts or assemblies for products or systems; and application of natural and physical science principles to basic or applied research problems in fields, such as metallurgy, chemistry, and physics. Classifications are made according to specialization as ELECTRONICS TECHNICIAN (profess. & kin.); MATHEMATICAL TECHNICIAN (profess. & kin.).

TEXTILE ENGINEER (profess. & kin.)

A term applied to workers possessing college degrees or equivalent experience in textile technology. These workers usually enter textile industry as trainees for any one of several supervisory or technical occupations. Classifications are made according to specialty as CLOTH DESIGNER (profess. & kin.); MANAGER, QUALITY CONTROL (profess. & kin.); DYER, SUPERVISOR (knitting; tex. prod., nec; textile); PRODUCTION SUPERINTENDENT (any industry); WEAVING SUPERVISOR (nonmet. min.; textile). Professional engineers who refer to themselves as textile engineers because of their experience in the textile industry should be classified according to their specialty as CHEMICAL ENGINEER (profess. & kin.); ELECTRICAL ENGINEER (profess. & kin.); MECHANICAL ENGINEER (profess. & kin.).

TIRE BUILDER (rubber tire)

A term applied to workers engaged in building parts of tires or assembling whole tires. Classifications are made according to part of tire being made as BAND BUILDER (rubber tire); or according to tire assembled as TIRE BUILDER, AUTOMOBILE (rubber tire); TIRE BUILDER, HEAVY SERVICE (rubber tire).

TOWER OPERATOR I (chemical)

A term applied to workers who operate or tend columns or towers in chemical absorption, distillation, stripping, rectification, or related processes. Classifications are made according to process operated as ABSORPTION OPERATOR (chemical) or according to equipment unit as TOWER HELPER (chemical).

TOXIC OPERATOR (chemical)

A term applied to any worker who processes or otherwise handles toxic explosives, such as tetryl and nitroglycerin, or toxic ingredients, such as acids and benzene. Classifications are made according to equipment used or according to material handled as TETRYL-SCREEN OPERATOR (chemical).

TRAINEE (any industry)

A term applied to workers who are engaged, under direct supervision, in learning a job or trade that may require up to several months of continuous on-the-job training, with or without related schooling in vocational subjects, before the worker may be considered fully qualified to perform the job. Suc workers should be treated as entry applicants except that, if they have completed their training requirements, they should be classified according to the jo learned. Workers who are learning a trade through apprenticeship trainin should be classified in accordance with the procedure set forth under APPRENTICE (any industry).

TRAINEE ENGINEER (profess. & kin.)

A term applied to an engineer who works under supervison of experience engineers to gain qualifying experience in a particular field. Classifications ar made according to field of specialization as CHEMICAL ENGINEER (profess & kin.); ELECTRICAL ENGINEER (profess. & kin.); MECHANICAL ENGINEER (profess. & kin.).

TRUCK DRIVER (any industry) alternate titles: truck operator

A term applied to workers who drive trucks to transport materials, merchandise, equipment, or people. Workers are classified according to type o truck as DUMP-TRUCK DRIVER (any industry); TRACTOR-TRAILER TRUCK DRIVER (any industry); TRUCK DRIVER, LIGHT (any industry).

TUNNEL WORKER (construction)

A term applied to a person working in tunnel. Classifications are made according to work performed as LOCK TENDER (construction) I; PIPE CAULKER (construction); SHIELD RUNNER (construction).

TYPESETTER (print. & pub.)

A term applied to a worker who, prior to actual printing operations, sets an assembles type and cuts in chases for printing articles, headings, and othe printed matter; or who composes type by operating various typesetting machines. Typically is required to complete a lengthy apprenticeship and is thoroughly versed in type style, printed page makeup, and printing techniques involved in newspaper or commercial printing. Classifications are made accordin to type of printing activity engaged in as COMPOSITOR (print. & pub. 973.381-010; LINOTYPE OPERATOR (print. & pub.) 650.582-010; MAKEUP ARRANGER (print. & pub.) 973.381-026; MONOTYPE-KEYBOARD OPERATOR (machinery mfg.; print. & pub.) 650.582-014; TYPE-CASTING MACHINE OPERATOR (print. & pub.) 654.582-010; TYPESETTER-PERFORATOR OPERATOR (print. & pub.) 203.582-062.

VISUAL-INFORMATION SPECIALIST (profess. & kin.)

A term applied to civil service workers who plan and design visual materia used in publications, exhibits, speeches, briefings, television, motion pictures film strips, and similar visual media. Classifications are made according to duties and area of specialization as ART DIRECTOR (profess. & kin.); AUDIO-VISUAL PRODUCTION SPECIALIST (profess. & kin.); DISPLAY DESIGNER (profess. & kin.); GRAPHIC DESIGNER (profess. & kin.); ILLUSTRATOR (profess. & kin.); PUBLIC-RELATIONS REPRESENTATIVE (profess. & kin.); SET DESIGNER (motion picture; radio-tv broad.).

WARE FORMER (pottery & porc.)

A term applied to workers who form clay into vessels or other objects b hand or by using molds or presses. Classifications are made according to method used as CASTER (pottery & porc.); DIE PRESSER (pottery & porc.); JOLLIER (pottery & porc.); POTTERY-MACHINE OPERATOR (pottery & porc.); THROWER (pottery & porc.).

WASTE HAND (textile)

A term designating workers who handle waste materials in textile mill. Classifications are made according to task performed as LABORER, SALVAGE (any industry), or according to machine tended as WASTE-MACHINE TENDER (tex. prod., nec; textile).

WELDER, CERTIFIED (welding) alternate titles: certified welder

A term applied to a welder who possesses a written certification from an employer or certifying agent, such as governmental agency, and professional o technical association, verifying that worker's production of specified welds meets prescribed standards. Not all welders are certified. Certified and non-certified welders are classified according to welding process or workpiece, such as WELDER, ARC (welding); WELDER, BOILERMAKER (struct. metal); WELDER-FITTER (welding).

WELL-POINT SETTER (construction)

A term applied to a LABORER, PLUMBING (construction); MUCKER, COFFERDAM (construction); or PIPE-LAYER HELPER (construction) when assisting in the installation of well-point pumps and in setting well-point pipe into sand or loose earth to provide subsoil drainage systems for excavation work below ground water level.

WHEELER (construction) alternate titles: buggy pusher; chute worker; loader; wheelbarrow pusher

A term applied to a BRICKLAYER HELPER (construction); CARPENTER HELPER, HARDWOOD FLOORING (construction); LABORER, CONCRETE-MIXING PLANT (construction); LABORER, PLUMBING (construction); LABORER, ROAD (construction); PLASTERER HELPER (construction); or STONEMASON HELPER (construction) when pushing wheelbarrow or buggy (two-wheeled push cart with deep body) to transport concrete, mortar, sand, or other material.

YARD SUPERVISOR (any industry) alternate titles: yard boss

A term applied to a worker who supervises and directs activities of workers engaged in such duties as stacking materials, loading and unloading incoming and outgoing shipments, or sorting scrap material for salvage, in yard of an industrial plant. Classifications are made according to activity supervised as **STOCK SUPERVISOR** (clerical); **SUPERVISOR, FRAMING MILL** (wood prod., nec); **SUPERVISOR, SCRAP PREPARATION** (steel & rel.).

YEOMAN (water trans.)
A term applied to an ADMINISTRATIVE CLERK (clerical) who performs clerical duties on board ship.

GOE: 05.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 88

002.061-014 AERONAUTICAL ENGINEER (aircraft mfg.)
Designs, develops, and tests aircraft, space vehicles, surface effect vehicles, missiles, and related component systems, applying engineering principles and techniques: Designs and develops commercial, military, executive, general aviation, or special purpose aircraft, space vehicles, satellites, missiles, or related hardware or systems. Tests models, prototypes, subassemblies, or production vehicles to study and evaluate operational characteristics and effects of stress imposed during actual or simulated flight conditions. May specialize in design and development of structural components, such as wings, fuselage, rib assemblies, landing gear, or operational control systems. May specialize in analytical programs concerned with ground or flight testing, or development of acoustic, thermodynamic, or propulsion systems. May assist in planning technical phases of air transportation systems or other aspects of flight operations, maintenance, or logistics.
GOE: 05.01.07 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 86

002.061-018 AERONAUTICAL TEST ENGINEER (aircraft mfg.)
Conducts testing activities on aerospace and aircraft products, performing duties as described under TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 88

002.061-022 AERONAUTICAL-DESIGN ENGINEER (aircraft mfg.)
Develops basic design concepts used in design, development, and production of aeronautical and aerospace products and systems, performing duties as described under DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 88

002.061-026 AERONAUTICAL-RESEARCH ENGINEER (aircraft mfg.)
Conducts research in field of aeronautics, performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 88

002.061-030 STRESS ANALYST (aircraft mfg.)
Conducts stress analyses on designs of experimental, prototype, or production aircraft, space vehicles, surface effect vehicles, missiles, and related components to evaluate ability to withstand stresses imposed during flight or ground operations: Analyzes ability of structural components to withstand stresses imposed by static, dynamic, or thermal loads, due to operational or test conditions. Studies preliminary specifications and design requirements to determine strength and bending characteristics of parts, assemblies, and total airframe. Consults with design personnel regarding results of analyses and need for additional analysis, testing, or design modifications. Formulates *mathematical model* of stress problem or devises other methods of computer analysis or simulation to assist in stress analysis.
GOE: 05.01.04 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 88

002.151-010 SALES ENGINEER, AERONAUTICAL PRODUCTS (aircraft mfg.)
Sells aeronautical products and provides customers with technical engineering services as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

002.167-010 VALUE ENGINEER (aircraft mfg.) alternate titles: cost development engineer; design specialist, producibility, cost and component technology
Plans and coordinates engineering activities to develop and apply standardized design criteria and production requirements for parts and equipment used in aircraft and aerospace vehicles: Establishes and maintains liaison between engineering and other departments to formulate and apply design criteria and production requirements for proposed products. Analyzes product design data to determine conformance to established design selection criteria, use of standardized parts and equipment, and design-to-cost ratio. Approves initial design or recommends modifications based on producibility, cost, and component technology factors. Coordinates testing of new parts and equipment, evaluates test results, and approves or rejects usage of parts and equipment based on test results. Evaluates and approves selection of vendors. Initiates and provides technical direction for research and development programs to enhance production methods, improve parts and equipment technology, and reduce costs. Develops methods and programs to predict, track, and report production costs during design development.
GOE: 05.01.06 STRENGTH: S GED: R6 M5 L6 SVP: 8 DLU: 89

002.167-014 FIELD-SERVICE ENGINEER (aircraft mfg.)
Plans and coordinates activities concerned with investigating and resolving customer reports of technical problems with aircraft or aerospace vehicles and eliminating future operational or service difficulties: Reviews performance reports and documentation from customers and field representives, and inspects malfunctioning or damaged product to determine nature and scope of problem. Analyzes review and inspection findings to determine source of problem, and recommends repair, replacement, or other corrective action. Coordinates problem resolution with engineering, customer service, and other personnel to expedite repairs. Maintains records of performance reports. Analyzes reports of technical problems to determine trends affecting future design, production, service, and maintenance processes, and recommends modifications to eliminate future problems. May prepare service handbooks and bulletins based on field investigations, engineering changes, and overall knowledge of product. May provide on-site technical assistance to oversee repairs.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

002.167-018 AERONAUTICAL PROJECT ENGINEER (aircraft mfg.) a ternate titles: aerospace project engineer
Directs and coordinates activities of personnel engaged in designing mech nisms, structures, systems, and equipment for aeronautical or aerospace pro ucts, applying knowledge of engineering theory and technology: Reviews an evaluates product request from customer, and formulates conceptual design meet customer requirements. Analyzes project proposal to determine feasibilit producibility, cost, and production time, and discusses proposal with custom representatives, engineers, and other personnel. Assigns project personnel specific aspects or phases of project, such as analysis, development, or desig Evaluates product design for conformance to engineering principles, custom requirements, quality standards, and specifications. Evaluates and approves d sign changes and drawing releases. Coordinates design, production, testing, an related activities. Consults with project personnel and others to provide technical assistance and information.
GOE: 05.01.08 STRENGTH: L GED: R6 M6 L6 SVP: 9 DLU: 88

002.261-010 DRAFTER, AERONAUTICAL (aircraft mfg.)
Drafts engineering drawings of developmental or production airplanes, missiles, and component and ancillary equipment, including launch mechanism and scale models of prototype aircraft, as planned by AERONAUTICAL ENGINEER (aircraft mfg.) 002.061-014. Performs other duties as described unde DRAFTER (profess. & kin.) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 87

002.261-014 RESEARCH MECHANIC (aircraft mfg.) alternate titles laboratory test mechanic
Lays out, fabricates, assembles, and tests mechanical, electromechanica structural, hydraulic, and pneumatic aircraft parts, assemblies, and mechanism to assist engineers in determining faulty design or fabrication procedures: Lay out, fabricates, and assembles parts, assemblies, and mechanisms to be teste according to blueprints, specifications, sketches, templates, or verbal instructions. Installs test specimens, such as rib assemblies, struts, landing gears valves, ducts, fuselage sections, and control surfaces, in test equipment, and connects wiring, tubing, couplings, and power sources, using handtools and power tools. Operates test equipment to gather data on performance of parts assemblies, and mechanisms under simulated flight and operational conditions Measures induced variations from normal, using precision instruments, such a micrometers, verniers, calipers, pressure gauges, flowmeters, strain gauges, and dynamometers. Records and interprets test data. Confers with engineering personnel regarding test procedures and test results. Fabricates and assembles tes equipment, tooling, shop aids, or other devices for experimental test projects.
GOE: 05.01.04 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 87

002.262-010 FLIGHT-TEST DATA ACQUISITION TECHNICIAN (aircraft mfg.) alternate titles: data acquisition laboratory technician; technical aide, flight test data
Sets up, operates, monitors, modifies, calibrates, and maintains computer systems and devices for acquisition and analysis of flight test data, utilizing knowledge of electronic theory and operation of computer systems: Reviews engineering notification of flight test to determine data required for post-flight analysis. Plans method and sequence of operations to acquire data, and sets up required electronic data acquisition, test, and measurement equipment and accessories. Inputs flight test data and program information into computer consol for specific test requested. Enters commands to modify program to accommodate additional or revised test requirements. Calculates calibration values use as model for comparison and measurement of test data. Monitors lights, displays, and other operating features of computer equipment, such as console, receivers, and printers, to detect malfunctions and ensure integrity of processe data. Diagnoses cause of equipment malfunctioning, and adjusts, repairs, or replaces faulty components. Enters information to update flight test data base and to maintain records, such as electronic parts inventory and manuals for equipment maintenance and calibrations. Discusses flight test requirements and results with engineers and other personnel.
GOE: 05.03.05 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 89

003 ELECTRICAL/ELECTRONICS ENGINEERING OCCUPATIONS

This group includes occupations concerned with the application of the law of electrical energy and the principles of engineering for the generation, transmission, and use of electricity. Also includes the design and development o machinery and equipment for production and utilization of electric power. Accessory techniques needed are those used in mechanical and process engineering. Typical specializations are electrical power generation, transmission, and distribution, atomic power generation, electrical and electronic components equipment, and systems manufacturing, radio and television broadcasting, telephone, telegraph, and electronic computer engineering, and bioengineering.

003.061-010 ELECTRICAL ENGINEER (profess. & kin.)
Researches, develops, designs, and tests electrical components, equipment and systems, applying principles and techniques of electrical engineering: Designs electrical equipment, facilities, components, products, and systems fo commercial, industrial, and domestic purposes [DESIGN ENGINEER, FACILITIES (profess. & kin.) Master Title; DESIGN ENGINEER, PRODUCTS (pro

fess. & kin.) Master Title]. Designs and directs engineering personnel in fabrication of test control apparatus and equipment, and determines methods, procedures, and conditions for testing products [TEST ENGINEER (profess. & kin.) Master Title]. Develops applications of controls, instruments, and systems for new commercial, domestic, and industrial uses. Directs activities to ensure that manufacturing, construction, installation, and operational testing conform to functional specifications and customer requirements. May direct and coordinate operation, maintenance, and repair of equipment and systems in field installations. May specialize in specific area of discipline, such as electrical energy generation, transmission, and distribution systems; products, such as appliances, generators, transformers, control devices, and relays; or area of work, such as manufacturing, applications, or installation. May use computer-assisted engineering and design software and equipment to perform engineering tasks.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 88

003.061-014 ELECTRICAL TEST ENGINEER (profess. & kin.)
Conducts tests on electrical equipment and systems, performing duties as described under TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.061-018 ELECTRICAL-DESIGN ENGINEER (profess. & kin.)
Designs electrical equipment and products, performing duties as described under DESIGN ENGINEER, FACILITIES (profess. & kin.) Master Title; DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.061-022 ELECTRICAL-PROSPECTING ENGINEER (profess. & kin.) alternate titles: electrical engineer, geophysical prospecting
Designs and develops electrical and electronic instruments and equipment used in petroleum prospecting with the seismograph, magnetometer, or other instruments which detect and measure various physical properties of the earth's crust.
GOE: 05.01.07 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

003.061-026 ELECTRICAL-RESEARCH ENGINEER (profess. & kin.)
Conducts research in various fields of electrical phenomena performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.061-030 ELECTRONICS ENGINEER (profess. & kin.)
Researches, develops, designs, and tests electronic components, products, and systems for commercial, industrial, medical, military, and scientific applications, applying principles and techniques of electronic engineering: Designs electronic circuits, components and integrated systems, utilizing ferroelectric, nonlinear, dielectric, phosphorescent, photo-conductive, and thermoelectric properties of materials [DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title]. Designs test control apparatus and equipment, determines procedures for testing products [TEST ENGINEER (profess. & kin.) Master Title], and directs engineering personnel in fabrication of test control apparatus and equipment. Devel-
ps new applications of conductive properties of metallic and nonmetallic mate-
ials used in components, and in application of components to products or sys-
ems. May direct field operations and maintenance of electronic installations.
May evaluate operational systems and recommend design modifications to
liminate causes of malfunctions or changes in system requirements. May spe-
ialize in development of electronic principles and technology in fields, such
s telecommunications, telemetry, aerospace guidance, missile propulsion con-
ol, counter-measures, acoustics, nucleonic instrumentation, industrial controls
nd measurements, high-frequency heating, computers, radiation detection, en-
ephalography, electron optics, and biomedical research. May use computer-as-
sted engineering and design software and equipment to perform engineering
sks.
OE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 88

03.061-034 ELECTRONICS-DESIGN ENGINEER (profess. & kin.)
Designs and develops electronic components, equipment, systems, and prod-
cts, applying knowledge and principles of electronic theory, design, and engi-
eering. Performs duties as described under DESIGN ENGINEER, PROD-
CTS (profess. & kin.) Master Title. May use computer-assisted engineering
d design software and equipment to formulate and test electronic designs.
OE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

03.061-038 ELECTRONICS-RESEARCH ENGINEER (profess. & kin.)
Conducts research on electronic phenomena, performing duties as described
der RESEARCH ENGINEER (profess. & kin.) Master Title.
OE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

3.061-042 ELECTRONICS-TEST ENGINEER (profess. & kin.)
Plans, develops, and conducts tests on electronic components, products, and
stems, applying knowledge and principles of electronic theory, testing meth-
ology and procedures, and electronic engineering. Performs duties described
der TEST ENGINEER (profess. & kin.) Master Title. May develop or use
mputer software and hardware to conduct tests on electronic products and
stems.
OE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 87

3.061-046 ILLUMINATING ENGINEER (profess. & kin.)
Designs and directs installation of illuminating equipment and systems for
ldings, plants, streets, stadia, tunnels, and outdoor displays: Studies lighting requirements of client to determine lighting equipment and arrangement of lamps that will provide optimum illumination with economy of installation and operation. Designs lamps of required light intensity and output, light control reflectors and lenses, and lamp arrangement required to meet illuminating standards. Plans and prepares drawings for installation of lighting system in accordance with client's specifications and municipal codes. Directs installation of system to ensure conformance with engineering specifications and compliance with electrical codes. May be designated according to type or location of illumination system designed and installed as Building-Illuminating Engineer (profess. & kin.); Industrial-Illuminating Engineer (profess. & kin.); Outdoor-Illuminating Engineer (profess. & kin.).
GOE: 05.01.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

003.061-050 PLANNING ENGINEER, CENTRAL OFFICE FACILITIES (tel. & tel.)
Conducts studies to develop data required for planning central office switching facilities, and prepares plans and schedules for acquisition and installation of equipment to meet long term and current relief requirements: Conducts studies to accumulate information on current services, equipment capacities, current traffic data and estimated acquisition and installation costs. Analyzes data and forecasts on subscriber demands and projected traffic to determine type, size, and quantity of switching equipment required. Plans and schedules equipment acquisition, and installation, considering such factors as availability, current and future costs, and other economic projections. Reviews implementation schedules on continuing basis to ensure switching facilities have capacity within objective limits for subscriber demands. Prepares modifications on implementation schedules for acquisition and installation of switching equipment due to unforeseen increase or decrease of demands for services.
GOE: 05.01.03 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

003.131-010 SUPERVISOR, DRAFTING AND PRINTED CIRCUIT DESIGN (profess. & kin.)
Supervises and coordinates activities of workers engaged in drafting and designing layouts of printed circuit boards (PCBs) for use in manufacture of electronic equipment: Confers with PCB vendors to resolve problems encountered with board design. Reviews cost quotations for equipment and attends demonstrations to select equipment for purchase. Requisitions supplies, such as film positives. May design or change design of layout for PCBs [DRAFTER (profess. & kin.) Master Title]. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 86

003.151-010 SALES-ENGINEER, ELECTRICAL PRODUCTS (profess. & kin.)
Sells electrical products, power, and systems and provides technical services to clients, performing duties as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.151-014 SALES-ENGINEER, ELECTRONICS PRODUCTS AND SYSTEMS (profess. & kin.)
Sells electronic products and systems and provides technical services to clients, performing duties as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.161-010 ELECTRICAL TECHNICIAN (profess. & kin.) alternate titles: electrical-laboratory technician
Applies electrical theory and related knowledge to test and modify developmental or operational electrical machinery and electrical control equipment and circuitry in industrial or commercial plants and laboratories: Assembles and tests experimental motor-control devices, switch panels, transformers, generator windings, solenoids, and other electrical equipment and components according to engineering data and knowledge of electrical principles. Modifies electrical prototypes to correct functional deviations under direction of ELECTRICAL ENGINEER (profess. & kin.). Diagnoses cause of electrical or mechanical malfunction or failure of operational equipment and performs preventative and corrective maintenance. Develops wiring diagrams, layout drawings, and engineering specifications for system or equipment modifications or expansion, and directs personnel performing routine installation and maintenance duties. Plans, directs, and records periodic electrical testing, and recommends or initiates modification or replacement of equipment which fails to meet acceptable operating standards.
GOE: 05.01.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

003.161-014 ELECTRONICS TECHNICIAN (profess. & kin.)
Lays out, builds, tests, troubleshoots, repairs and modifies developmental and production electronic components, parts, equipment, and systems, such as computer equipment, missile control instrumentation, electron tubes, test equipment, and machine tool numerical controls, applying principles and theories of electronics, electrical circuitry, engineering mathematics, electronic and electrical testing, and physics: Discusses layout and assembly procedures and problems with ELECTRONICS ENGINEER (profess. & kin.) 003.061-030 and draws sketches to clarify design details and functional criteria of electronic units. Assembles experimental circuitry (breadboard) or complete prototype model according to engineering instructions, technical manuals, and knowledge of electronic systems and components. Recommends changes in circuitry or installation specifications to simplify assembly and maintenance. Sets up standard test

apparatus or devises test equipment and circuitry to conduct functional, operational, environmental, and life tests to evaluate performance and reliability of prototype or production model. Analyzes and interprets test data. Adjusts, calibrates, aligns, and modifies circuitry and components and records effects on unit performance. Writes technical reports and develops charts, graphs, and schematics to describe and illustrate system's operating characteristics, malfunctions, deviations from design specifications, and functional limitations for consideration by engineers in broader determinations affecting system design and laboratory procedures. May operate bench lathes, drills, or other machine tools to fabricate parts, such as coils, terminal boards, and chassis. May check functioning of newly installed equipment in aircraft, ships, and structures to evaluate system performance under actual operating conditions. May instruct and supervise other technical personnel. May be designated according to specialization in electronic applications as Computer-Laboratory Technician (profess. & kin.); Development-Instrumentation Technician (profess. & kin.); Electronic-Communications Technician (profess. & kin); Electronics Technician, Nuclear Reactor (profess. & kin); Experimental Electronics Developer (aircraft mfg.); Systems-Testing-Laboratory Technician (profess. & kin.).
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 88

003.161-018 TECHNICIAN, SEMICONDUCTOR DEVELOPMENT (profess. & kin.)

Tests developmental semiconductor devices or sample production units, and evaluates test equipment to develop data for engineering evaluation of new designs or special production yield study, applying knowledge of electronic theory and test equipment operating principles: Designs basic circuitry and prepares rough sketches for design documentation as directed by engineers, using drafting instruments and computer-assisted design/drafting equipment. Evaluates, calibrates, and tests new equipment circuits and fixtures, using testing equipment, such as oscilloscopes, logic and test probes, and calibrators. Builds and modifies electronic components, using handtools and power tools. Assists engineers in development of testing techniques and laboratory equipment. Assists with equipment maintenance. Liaises between test project sites to ensure orderly flow of information and materials. May supervise other technicians in unit.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 86

003.167-010 CABLE ENGINEER, OUTSIDE PLANT (tel. & tel.)

Plans, directs, and coordinates activities concerned with laying and repairing submarine telecommunication cables: Devises plans for laying cable lines, taking into consideration ocean currents and ocean depths. Determines where and how cables should be laid and decides such matters as where to place buoys, where to cut cable, what grapnel to use, what length of rope to use for a given depth, what type of cable to use, and what route to follow. Keeps charts and records to show depth and location of all cables laid. Analyzes test figures made when cable fault occurs to determine exact location of cable break. Oversees work of locating and repairing damaged cables.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.167-014 DISTRIBUTION-FIELD ENGINEER (utilities) alternate titles: line inspector

Plans and outlines changes in power distribution facilities to overcome unsatisfactory conditions, such as overloaded or underloaded circuits, and to provide for new or anticipated load increases: Reviews complaints and reports of load requirements for area under question to determine nature of adjustment to be made. Makes field surveys or studies maps showing relays, line intersections, overhead and underground connections, feeder lines, and other component elements of power system area under observation to ascertain where changes can be made. Makes calculations, following standardized procedures, to determine amount and type of replacing, switching, or other system revisions necessary to improve service. Recommends installation of additional facilities if changes within existing system cannot meet increased load. Makes notes and sketches of proposed changes and refers sketch to DRAFTER, CARTOGRAPHIC (profess. & kin.) for detailed work drawings. May investigate low voltage complaints by visiting area and determining if excessive load or power leakage causes defect.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.167-018 ELECTRICAL ENGINEER, POWER SYSTEM (utilities) alternate titles: power engineer

Designs power system facilities and equipment and coordinates construction, operation, and maintenance of electric power generating, receiving, and distribution stations, transmission lines, and distribution systems and equipment: Designs and plans layout of generating plants, transmission and distribution lines, and receiving and distribution stations. Directs preparation of, or prepares drawings and specific type of equipment and materials to be used, in construction and equipment installation. Estimates labor, material, construction, and equipment costs. Inspects completed installations for conformance with design and equipment specifications and safety standards. Observes operation of installation for conformance with operational standards. Coordinates operation and maintenance activities to ensure opitimum utilization of power system facilities and meet customer demands for electrical energy. May compile power rates and direct others in evaluating properties and developing utilities in new territories. May be designated according to type of engineering functions as Engineer, Design-And-Construction (utilities); Engineer, Operations-And-Maintenance (utilities).
GOE: 05.01.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

003.167-022 ELECTROLYSIS-AND-CORROSION-CONTROL ENGINEER (profess. & kin.) alternate titles: corrosion-control specialist; corrosion engineer; electrolysis engineer; electrolysis investigator

Investigates causes and devises means to combat or eliminate electrolysis of water, gas, and oil mains and pipelines resulting from stray electric currents flowing in earth: Determines existence and locates sources of stray electric currents creating electrolytic conditions, using voltmeters, ammeters, and other electrical testing apparatus. Recommends preventive and corrective measures for protection of pipe and underground structures, such as use of insulating and corrosion resisting materials. Confers with power company personnel and power consumers and suggests methods to eliminate sources of power leakage. Studies destructive properties of soil, corrosive actions, and other problems of deterioration, and suggests methods of preventing or mitigating trouble. Writes reports of studies and investigations conducted. May design and direct installation of cathodic protection stations to minimize and control electrolysis. May design and construct apparatus for use in testing materials or determining location of stray electric currents.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.167-026 ENGINEER OF SYSTEM DEVELOPMENT (utilities) alternate titles: development-and-planning engineer; planning engineer; system-planning engineer

Plans and coordinates activities to provide for orderly development and improve operating efficiency of electric power system: Coordinates scheduling, conducting, and analysis of special studies, such as commercial and residential developments in surrounding territory, population estimates, and advantages of and facilities for interconnections with other power systems. Coordinates collection and analysis of operational data, such as system-load demands and generating capacity. Evaluates analyses and recommends additional facilities to meet requirements of new, increased, or future loads, or to improve system.
GOE: 05.01.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

003.167-030 ENGINEER-IN-CHARGE, STUDIO OPERATIONS (radio-tv broad.) alternate titles: chief engineer; chief engineer, broadcasting operations; transmission engineer

Directs and coordinates radio or television station activities concerned with acquisition, installation, and maintenance, or with modification of studio broadcasting equipment: Evaluates studio needs for new broadcasting equipment to determine if acquisition would be justified considering such factors as cost, availability, and improvement gain in technical performance, and authorizes acquisition according to evaluation. Directs activities concerned with layout and design of electrical circuitry for acquired equipment to ensure conformance with codes and safety regulations. Establishes procedures for operation and maintenance of studio, remote control, and microwave transmission equipment. Inspects, and directs testing and maintenance of studio, remote, and airborne broadcasting equipment to ensure operational performance meets company standards and rules and regulations of Federal Communications Commission. Develops modification plans for existing broadcasting equipment to improve technical performance. Directs modification and testing of equipment to ensure operational performance meets specified standards. Prepares repair and maintenance schedules for studio, remote, and airborne broadcasting equipment to prevent interruption of broadcasts. Contacts telephone company personnel to ensure leased landlines or microwave facilities are operative and available for network broadcasting [COMMERCIAL ENGINEER (radio-tv broad.) 003.187-014]. Prepares annual budget for engineering department and controls expenditures within budget limitations. May direct and coordinate activities of transmitter personnel [ENGINEER-IN-CHARGE, TRANSMITTER (radio-tv broad.) 003.167-034]. May operate and maintain transmitter equipment to broadcast radio and television programs [TRANSMITTER OPERATOR (radio-tv broad.) 193.262-038]. May inspect and direct repair and maintenance of unmanned stations. Must hold First Class Radiotelephone License issued by FCC.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

003.167-034 ENGINEER-IN-CHARGE, TRANSMITTER (radio-tv broad.) alternate titles: director of engineering; engineer, chief; transmitter engineer

Directs and coordinates operation and maintenance activities of radio, television broadcasting, or satellite uplink transmitter station in accordance with rules and regulations of Federal Communications Commission: Establishes procedures and standards for operation and maintenance of transmitter equipment. Trains workers to interpret readings and indicator lights on control console and picture on video monitor, and to determine operating adjustments required to obtain uniform audio sound level and video picture of specified clarity and color. Tunes or directs worker to tune transmitter to ensure signal emission and radiation do not infringe on frequencies or broadcast area of other stations and to obtain optimum operational performance of transmitting equipment. Trains workers in diagnosing causes of transmitter malfunctions, using test equipment, and in repairing or jury-rigging equipment (making temporary hookup) to return transmitter to operational status. Establishes procedures for testing of transmitter equipment, performance of preventative maintenance activities and operation of equipment during test of Emergency Broadcast System. Develops, plans, and prepares schematic drawings designed to modify and improve existing transmitter equipment, and directs and coordinates equipment modification activities to prevent interruptions in transmitting operations. Prepares work schedules for TRANSMITTER OPERATORS (radio-tv broad.) 193.262-038

remove and repair, or assist workers to remove and repair equipment,
g handtools, such as screwdrivers, wrenches, and pliers. Must hold first
s radiotelephone license issued by Federal Communications Commission.
E: 05.01.03 STRENGTH: M GED: R5 M5 L5 SVP: 8 DLU: 89

.167-038 INDUCTION-COORDINATION POWER ENGINEER (utilities)
nvestigates and eliminates inductive interference by power transmission sys-
s in telephones and radio receivers: Conducts technical investigations relat-
to inductive-coordination problems, including joint field investigations with
ineers of communications and railroad companies. Checks proposed parallels
ween power and communications circuits and recommends installation of fa-
ies to eliminate or reduce inductive interference. Consults with transmission
distribution line engineers on design of lines for prevention or reduction
radio interference. Conducts research in detection and elimination of the
ses of radio noises in transmission systems. Assists municipalities on prob-
s related to control equipment for alarm systems.
E: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

.167-042 OUTSIDE-PLANT ENGINEER (tel. & tel.)
Plans and prepares drawings for construction of new, and removal or rear-
gement of existing, overhead or underground lines, cables, and conduits to
ain optimum and economical utilization of communications facilities: Ana-
es traffic loads, available and existing lines, and estimates or forecasts of
jected traffic to determine new construction or rearrangements and removals
uired. Selects routing of lines and equipment required for work projects. Pre-
es detailed construction and installation drawings, estimates equipment,
or, and material costs. Initiates work authorization request and submits re-
st with substantiating drawings and documents to management for approval.
lers materials and equipment required and directs work activities to ensure
formance with engineering specifications and work authorization.
E: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

.167-046 POWER-DISTRIBUTION ENGINEER (utilities) alternate titles: electric-distribution engineer
Plans construction and coordinates operation of facilities for transmitting
ver from distribution points to consumers: Lays out substations and overhead
underground lines in urban and rural areas. Prepares specifications and esti-
tes costs. Makes complex electrical computations to determine type and ar-
gement of circuits and size, type and number of pieces of equipment, such
transformers, circuit breakers, switches, and lightning arresters. Computes
and stress for specifications on wire and cable. Plans layout of pole lines
underground cable and solves problems, such as determining height, loca-
n, spacing, guying, and insulating of poles. May be designated according to
cialization as Overhead-Distribution Engineer (utilities); Rural-Service Engi-
r (utilities); Substation Engineer (utilities); Underground-Distribution Engi-
r (utilities).
E: 05.01.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

.167-050 POWER-TRANSMISSION ENGINEER (utilities) alternate titles: electrical-transmission engineer; transmission-and-coordination engineer; transmission-line engineer
Lays out plans and estimates costs for constructing transmission lines (high-
sion facilities for carrying power from source to distributing points): Visits
posed construction site and selects best and shortest route to avoid inter-
ence with telephone or other lines. Submits data on proposed route to right-
way department for obtaining necessary easements. Arranges for aerial, topo-
phical, and other surveys to be made to obtain pertinent data for planning
es. Devises steel and wood supporting structures for cables and draws sketch
owing their location. Performs detailed engineering calculations to draw up
nstruction specifications, such as cable sag, pole strength, and necessary
ounding. Estimates labor, material, and construction costs, and draws up spec-
cations for purchase of materials and equipment. Keeps informed on new de-
opments in electric power transmission. Assists various departments of
wer company on problems involving transmission-line operation and mainte-
nce. Inspects completed installation. Does not usually plan facilities for dis-
buting power to consumers [POWER-DISTRIBUTION ENGINEER (utili-
s)].
E: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

.167-054 PROTECTION ENGINEER (utilities)
Plans layout and oversees maintenance of protection equipment of an electric
wer distribution system to minimize interruption to service and danger to
es and equipment from abnormalities, such as overload, no load, and short
cuits: Studies drawings of power system and makes complex calculations to
ermine type, number, location, and correlation of protectors, such as relays,
cuit breakers, fuses, and grounding devices. Plans adjustments and additions
protective system necessitated by increased demands in development of new
idential areas and unusual requirements of heavy industry. Coordinates test-
, repair, and installation of equipment. Studies new developments to deter-
ne suitability of their application to protection system. May program and di-
t computer analyses of system operating characteristics, such as power flow
der normal and short-circuit conditions, system stability, and voltage and load
itations to obtain data used for such purposes as timing major system
anges and additions, and analyzing interconnecting system problems. May be
signated according to specialization as Grounding Engineer (utilities); Relay
gineer (utilities).

GOE: 05.01.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

003.167-058 SUPERVISOR, MICROWAVE (radio-tv broad.)

Plans relocation, installation, repair, and maintenance of microwave transmitters and receivers for cable-television broadcasting and gives technical advice and direction to laboratory and field staff regarding microwave transmission and reception: Plans installation or relocation of microwave transmitters and receivers for improved cable-television reception, new channels, or on-site live-broadcast transmission, using knowledge of microwave and electronic theory and electronic measuring and testing instruments. Directs laboratory and field supervisors and technicians in technical aspects of relocating, installing, repairing, and maintaining microwave transmitters and receivers. Monitors field and laboratory technicians to see that FCC regulations regarding microwave equipment are observed. Advises field and laboratory staff on technical problems of microwave equipment, commercial-FM radios used in company trucks, and portable radios used by field staff.
GOE: 05.01.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

003.167-066 TRANSMISSION-AND-PROTECTION ENGINEER (tel. & tel.) alternate titles: transmission engineer

Plans and lays out telephone transmitting facilities from engineering sketches: Advises and assists operation forces on application of transmission methods, devices, and standards affecting telephone equipment. Provides engineering services for protection of telephone service and facilities from noise, cross-talk, electrolysis, lightning, and other adverse electrical effects. Investigates causes of personal injury resulting from contact with high voltage communication equipment.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.167-070 ENGINEERING MANAGER, ELECTRONICS (profess. & kin.)

Directs and coordinates activities of engineering department to design, manufacture, and test electronic components, products, and systems: Directs department activities, through subordinates, to design new products, modify existing designs, improve production techniques, and develop test procedures. Analyzes technology trends, human resource needs, and market demand to plan projects. Confers with management, production, and marketing staff to determine engineering feasibility, cost effectiveness, and customer demand for new and existing products. Forecasts operating costs of department and directs preparation of budget requests. Directs personnel activities of department, such as recruitment, hiring, performance evaluations, and salary adjustments. May direct field testing of products and systems performed by field staff.
GOE: 05.01.08 STRENGTH: S GED: R6 M6 L5 SVP: 9 DLU: 88

003.187-010 CENTRAL-OFFICE EQUIPMENT ENGINEER (tel. & tel.)

Directs implementation of planning schedule for installation of central office toll or local switching facilities, or interoffice transmission facilities equipment, such as radio, TV, camera, and repeaters: Reviews planning schedule or equipment request and data on projected traffic to determine quantities of specific types of equipment required. Plans arrangement of equipment, prepares cost estimates for equipment and installation, and submits data to management for authorization approval. Prepares drawings and equipment specifications for installation. Monitors installation activities to solve any problems concerning arrangement or specifications. Assigns equipment and installation expenditures to specific program or project accounts. Closes out installation authorization when equipment has been tested and put in service.
GOE: 05.01.03 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

003.187-014 COMMERCIAL ENGINEER (radio-tv broad.) alternate titles: traffic engineer

Plans use of wire facilities connecting stations comprising a network to cover changing conditions and requirements. Evaluates technical capabilities of wire facilities, according to availability and range, to obtain most effective method of transmission. Reviews network program schedule to be linked to network stations, and projects use of wire facilities. Subdivides wire facilities linking network stations for simultaneous broadcasting of different programs to stations. Tests facilities prior to broadcast time to determine readiness of transmission line. May prepare engineering estimates of equipment installations or modification of existing equipment.
GOE: 05.01.03 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

003.187-018 CUSTOMER-EQUIPMENT ENGINEER (tel. & tel.) alternate titles: services engineer

Directs activities concerned with selection and installation of telephone facilities and special equipment on customer's premises to meet customer's communication requirements: Reviews sales order to ascertain extent of telephone facilities and equipment required. Inspects customer premises to ascertain space available for installation of equipment and to determine type and quantity of designated equipment that can be installed to provide specific communication facilities. Prepares floor plan of equipment arrangement for customer or architect approval. Prepares cost estimate for equipment and installation and submits data to management for authorization to proceed with job. Orders equipment, prepares installation specifications, and monitors progress of installation to ensure facilities are ready on specified date. Prepares all job-related paper work and closes out work authorization when equipment is in service.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

003.261-010 INSTRUMENTATION TECHNICIAN (profess. & kin.)

Devises, selects, sets up, and operates electronic instrumentation and related electromechanical or electrohydraulic apparatus used for operational and envi-

ronmental testing of mechanical, structural, or electrical equipment, and translates test data for engineering personnel to formulate engineering design and evaluation decisions: Selects, installs, calibrates, and checks sensing, telemetering, and recording instrumentation and circuitry, and develops specifications for nonstandard apparatus according to engineering data, characteristics of equipment under test, and capabilities of procurable test apparatus. Sketches and builds or modifies jigs, fixtures, and instruments and related apparatus, and verifies dimensional and functional acceptability of devices fabricated by craft or technical personnel. Performs preventive and corrective maintenance of test apparatus and peripheral equipment. Installs or directs technical personnel in installation of unit in test chamber or other test facility. Operates test apparatus during test cycle to produce, regulate, and record effects of actual or simulated conditions, such as vibration, stress, temperature, humidity, pressure, altitude, and acceleration. Analyzes and converts test data to usable form, using mathematical formulas, and prepares graphs and written reports to translate test results. May plan test program. May use computerized equipment and software to perform testing functions and produce graphs. May be designated according to equipment tested as Rocket-Control Technician (profess. & kin.); or according to nature of test as Environmental-Research Test Technician (profess. & kin.); Vibration Technician (profess. & kin.).
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 90

003.261-014 CONTROLS DESIGNER (profess. & kin.) alternate titles: controls project engineer

Designs and drafts systems of electrical, hydraulic, and pneumatic controls for machines and equipment, such as arc welders, robots, conveyors, and *programmable controllers*, applying knowledge of electricity, electronics, hydraulics, and pneumatics: Discusses project with SUPERVISOR (any industry) Master Title and APPLICATIONS ENGINEER, MANUFACTURING (profess. & kin.) 007.061-038 to review functions of machines and equipment. Designs and drafts arrangement of linkage of conductors, relays, and other components of electrical, electronic, hydraulic, pneumatic, and lubrication devices, using drafting tools, and applying knowledge of electrical engineering and drafting [DRAFTER (profess. & kin.) Master Title]. Diagrams logic system for functions such as sequence and timing control. Designs and drafts diagrams of cable connection for robots, robot end-of-arm tool, *robot controller*, and other machines. Illustrates and describes installation and maintenance details, such as where bearings should be lubricated, types of lubrication, and which parts are lubricated automatically and manually. Confers with ASSEMBLER AND WIRER, INDUSTRIAL EQUIPMENT (elec. equip.; machinery mfg.) 826.361-010 to resolve problems regarding building of controls systems. Reviews schematics with customer's representatives to answer questions during installation of robot systems. Observes gauges during trial run of programmed machine and equipment operation to verify that electrical signals in system conform to specifications. May design controls for energy conversion or other industrial plant monitoring systems. May use computer and software programs to produce design drawings and be designated Controls Designer, Computer-Assisted (profess. & kin.).
GOE: 05.03.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 86

003.261-018 INTEGRATED CIRCUIT LAYOUT DESIGNER (profess. & kin.) alternate titles: mask designer

Designs layout for integrated circuits (IC), according to engineering specifications, using computer-assisted design (CAD) equipment and software, and utilizing knowledge of electronics, drafting, and IC design rules (standard IC manufacturing process requirements): Reviews and analyzes engineering design schematics and supporting documents, such as logic diagrams and design rules to plan layout of IC. Confers with engineering staff to resolve design details or problems. Enters engineering specifications into computer memory of CAD equipment and composes configurations on equipment display screen of IC logic elements (basic components of integrated circuit, such as resistors and transistors) for all IC layers, using keyboard, digitizing work aids (light pen or digitizing tablet), and engineering design schematics, and applying knowledge of design rules, programmed CAD functions, and electronics. Compares logic element configuration on equipment display screen with engineering schematics and redesigns or modifies logic elements, as needed, using digitizing work aids (light pen or digitizing tablet), keyboard, and programmed CAD functions. Lays out, redesigns, and modifies arrangement and interconnections of logic elements for each layer of integrated circuit, using digitizing work aids (light pen or digitizing tablet), keyboard and programmed CAD functions listed on display screen. Keys in specified commands, using CAD equipment keyboard, to test final IC layout for errors in design rules, using design rule software package. May generate copy of logic element design, using plotter to verify that logic element design copy meets design requirements and for use in laying out IC layer design for Very Large Scale (VLS) integrated circuits. May generate tape of final layout design for use in producing photo masks for each layer of IC, using CAD equipment. May program CAD equipment to change CAD functions listed on display screen, using keyboard. May be designated according to complexity of IC designed as IC Designer, Custom (profess. & kin.); IC Designer, Gate Arrays (profess. & kin.); IC Designer, Standard Cells (profess. & kin.).
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 86

003.261-022 PRINTED CIRCUIT DESIGNER (profess. & kin.)

Designs and drafts layout for printed circuit boards (PCB's) according to engineering specifications, utilizing knowledge of electronics, drafting, and PCB
design: Reviews and analyzes engineering design schematics and support
documents to plan layout of PCB components and printed circuitry. Conf
with engineering staff to resolve design details and problems. Drafts detai
drawings [DRAFTER (profess. & kin.) Master Title] and composes master l
out of design components and circuitry. Examines and verifies master layo
for electrical and mechanical accuracy. May verify accuracy of film reprodu
tions of master layout. May prepare copies of drawings for use in PCB f
rication, using blueprint or diazo print machine. May generate computer ta
for use in photo plotting design onto film, using digitizing equipment.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 88

003.281-010 DRAFTER, ELECTRICAL (profess. & kin.)

Drafts electrical equipment working drawings and wiring diagrams used
construction crews and repairers who erect, install, and repair electrical equ
ment and wiring in communications centers, power plants, industrial establi
ments, commercial or domestic buildings, or electrical distribution systems, p
forming duties as described under DRAFTER (profess. & kin.) Master Ti
May use computer-assisted drafting (CAD) equipment and software and be d
ignated Drafter (CAD), Electrical (profess. & kin.). May prepare detail cal
layout and diagrams for cable installation and be designated Electric-Cab
Diagrammer (elec. equip.).
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 86

003.281-014 DRAFTER, ELECTRONIC (profess. & kin.) alternate titl drafter, electromechanical

Drafts detailed drawings, such as wiring diagrams, layout drawings, mecha
cal detail drawings, and drawings of intermediate and final assemblies, used
manufacture, assembly, installation, and repair of electronic components, pri
ed circuit boards, and equipment. Examines electronic schematics and suppo
ing documents received from design engineering department to develop, co
pute, and verify specifications drafting data, such as configuration of parts,
mensions, and tolerances. Performs duties as described under DRAFTER (pr
fess. & kin.) Master Title. May use computer-assisted drafting (CAD) equi
ment and software and be designated Drafter (CAD), Electronic (profess.
kin.).
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 89

003.362-010 DESIGN TECHNICIAN, COMPUTER-AIDED (electro comp.) alternate titles: digitizer

Operates computer-aided design (CAD) system and peripheral equipment
resize or modify integrated circuit designs (artwork) and to generate compu
tape of artwork for use in producing mask plates used in manufacturing in
grated circuits: Reviews work order and procedural manuals to determine cri
cal dimensions of design. Calculates figures to convert design dimensions
resizing dimensions specified for subsequent production processes, using co
version chart and calculator. Locates file relating to specified design projecti
data base library and loads program into computer. Enters specified comman
into computer, using keyboard, to retrieve design information from file and d
play design on CAD equipment display screen. Types commands on keyboa
to enter resizing specifications into computer. Confers with engineering and d
sign staff to determine design modifications and enters editing information in
computer. Keys in specified information, using keyboard connected to on-li
or off-line peripheral equipment (plotter), to produce graphic representatio
(hard copy) of design for review and approval by engineering and design sta
Enters specified information into computer, using keyboard, to generate com
puter tape of approved design.
GOE: 05.03.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 86

005 CIVIL ENGINEERING OCCUPATIONS

This group includes occupations concerned with the planning, design, an
construction of structures and facilities, such as buildings, bridges, roads, ha
bors, airfields, dams, tunnels, and water supply and sewage systems. Also i
cluded are occupations concerned with the engineering aspects of environment
health systems and urban planning or renewal. Frequently requires a knowled
of industrial trends, population growth, zoning laws, and state and local buil
ing codes and ordinances. Accessory techniques needed are those used in ag
cultural, ceramic, chemical, electrical, geological, mechanical, metallurgical, an
mining engineering. Typical specializations are structures, hydraulics, transpo
tation systems, sanitation, water utility systems, airports, city planning, enviro
mental protection, construction, engineering mechanics, irrigation and drainag
power, soil mechanics and foundations, pipeline engineering, and waterwa
and harbors.

005.061-010 AIRPORT ENGINEER (profess. & kin.)

Plans and lays out airports and landing fields and directs construction wo
involved in leveling fields, laying out and surfacing runways, and providin
drainage: Designs runways based on weight and size of aircraft and prepar
material and construction specifications. Directs or participates in surveying
lay out installations and establish reference points, grades, and elevations
guide construction. Estimates costs to provide basis for payments to contracto
Observes progress of construction to ensure workmanship is in conformity wi
specifications and advises SUPERINTENDENT, CONSTRUCTION (constru
tion) regarding necessary corrections. May serve as agent or employee of con
tractor and study plans and specifications to recommend special equipment
procedures to reduce time and cost of construction. May schedule delivery

materials, analyze costs, and provide technical advice in solution of construction problems.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

005.061-014 CIVIL ENGINEER (profess. & kin.)
Plans, designs, and directs civil engineering projects, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation systems, pipelines, and powerplants: Analyzes reports, maps, drawings, blueprints, tests, and aerial photographs on soil composition, terrain, hydrological characteristics, and other topographical and geologic data to plan and design project. Calculates cost and determines feasibility of project based on analysis of collected data, applying knowledge and techniques of engineering, and advanced mathematics. Prepares or directs preparation and modification of reports, specifications, plans, construction schedules, environmental impact studies, and designs for project. Inspects construction site to monitor progress and ensure conformance to engineering plans, specifications, and construction and safety standards. May direct construction and maintenance activities at project site. May use computer-assisted engineering and design software and equipment to prepare engineering and design documents. May be designated according to specialty or product.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 81

005.061-018 HYDRAULIC ENGINEER (profess. & kin.) alternate titles: hydrologic engineer
Designs and directs construction of power and other hydraulic engineering projects for control and use of water: Computes and estimates rates of water-flow. Specifies type and size of equipment, such as conduits, pumps, turbines, pressure valves, and surge tanks, used in transporting water and converting water power into electricity. Directs, through subordinate supervisors, activities of workers engaged in dredging, digging cutoffs, placing jetties, and constructing levees to stabilize streams or open water ways. Designs and coordinates construction of artificial canals, conduits, and mains to transport and distribute water; and plans reservoirs, pressure valves, and booster stations to obtain proper water pressure at all levels. Frequently builds laboratory models to study construction and flow problems.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

005.061-022 IRRIGATION ENGINEER (profess. & kin.)
Plans, designs, and oversees construction of irrigation projects for transporting and distributing water to agricultural lands: Plans and designs irrigation fixtures and installation of fixtures to requirements and specifications. Directs, through subordinate supervisors, construction of such irrigation systems as dams, canals, and ditches, according to type of soil, climatic characteristics, water supply, return flow, and other factors affecting irrigation requirements. Conducts research on problems of soil drainage and conservation, applying knowledge of civil engineering [RESEARCH ENGINEER (profess. & kin.)].
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 77

005.061-026 RAILROAD ENGINEER (profess. & kin.)
Designs railroad and street railway tracks, terminals, yards, and other facilities and directs and coordinates construction and relocation of facilities: Plans roadbed, rail size, and curves to meet train speed and load requirements. Directs, through subordinate supervisors, construction of bridges, culverts, buildings, and other structures. Directs track and roadway maintenance. Surveys traffic problems related to street railway system and recommends grade revisions, additional trackage, use of heavier power, and other changes to relieve congestion and reduce hazards.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

005.061-030 SANITARY ENGINEER (profess. & kin.) alternate titles: public-health engineer
Designs and directs construction and operation of hygienic projects such as waterworks, sewage, garbage and trash disposal plants, drainage systems, and insect and rodent control projects: Plans development of watersheds and directs building of aqueducts, filtration plants, and storage and distribution systems for water supply. Directs swamp drainage, insect spraying, and design of insect-proof buildings. Plans and directs workers in building and operation of sewage-disposal plants. Designs and controls operation of incinerators, sanitary fills, and garbage-reduction plants to dispose of garbage and other refuse. Advises industrial plants in disposal of obnoxious gases, oils, greases, and other chemicals. Inspects and regulates sanitary condition of public places, such as markets, parks, and camps. May plan and direct operation of water treatment plant to soften and purify water for human consumption or industrial use and be known as Water-Treatment-Plant Engineer (profess. & kin.).
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

005.061-034 STRUCTURAL ENGINEER (construction)
Directs or participates in planning, designing, or reviewing plans for erection of structures requiring stress analysis: Designs structure to meet estimated load requirements, computing size, shape, strength, and type of structural members, or performs structural analysis of plans and structures prepared by private engineers. May inspect existing projects and recommend repair and replacement of defective members or rebuilding of entire structure.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

005.061-038 TRANSPORTATION ENGINEER (profess. & kin.)
Develops plans for surface transportation projects according to established engineering standards and state or federal construction policy: Prepares plans, estimates, and specifications to design transportation facilities. Plans alterations and modifications of existing streets, highways, and freeways to improve traffic flow. Prepares deeds, property descriptions, and right-of-way maps. Performs field engineering calculations to compensate for change orders and contract estimates. May prepare and present public reports of environmental analysis statements and other transportation information. May specialize in particular phase of work, such as making surveys, improving signs or lighting, preparing plans, or directing and coordinating construction or maintenance activities. May be designated Highway Engineer (government ser.). May specialize in studying vehicular and pedestrian traffic conditions and be designated Traffic Engineer (government ser.). May plan, organize, and direct work in transportation studies to plan surface systems and be designated Transportation Planning Engineer (government ser.).
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

005.061-042 WASTE-MANAGEMENT ENGINEER, RADIOACTIVE MATERIALS (profess. & kin.)
Designs, implements, and tests systems and procedures to reduce volume and dispose of nuclear waste materials and contaminated objects: Identifies objects contaminated by exposure to radiation, such as trash, workers' clothing, and discarded tools and equipment. Analyzes samples of sludge and liquid effluents resulting from operation of nuclear reactors to determine level of radioactivity in substances and potential for retention of radioactivity, using radioactivity counters and chemical and electronic analyzers. Refers to state and federal regulations and technical manuals to determine disposal method recommended for prevention of leakage or absorption of radioactive waste. Compares costs of transporting waste to designated nuclear waste disposal sites and reducing volume of waste and storing waste on plant site. Confers with equipment manufacturers' representatives and plant technical and management personnel to discuss alternatives and to choose most suitable plan on basis of safety, efficiency, and cost-effectiveness. Designs and draws plans for systems to reduce volume of waste by solidification, compaction, or incineration. Oversees construction, testing, and implementation of waste disposal systems, and resolves operational problems. Develops plans for modification of operating procedures to reduce volume and radioactive level of effluents, and writes manuals to instruct workers in changes in work procedures. Advises management on selection of lands suitable for use as nuclear waste disposal sites and on establishment of effective safety, operating, and closure procedures.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

005.167-010 CHIEF ENGINEER, WATERWORKS (waterworks)
Plans and directs activities concerned with water utility systems installation, operation, maintenance, and service: Directs activities of engineers engaged in preparing designs and plans to construct, enlarge, and modify such facilities as water treatment plants, watersheds, and dams, hydroelectric stations, pumping stations, and to install water mains, and other appurtenances. Provides engineering and technical direction for planning and design of water utility projects. Reviews plans and specifications prior to instituting project to determine whether they meet organizational requirements. Analyzes and compiles data received from engineers to prepare budget estimates. Directs and coordinates engineers in conducting studies, such as economics of systems operation, water distribution, and water treatment plants or relative equipment performance to determine most feasible approach to meeting organizational and technical problems. Confers with municipal authorities concerning budget requirements, changes in organizational policy, regulation of water rates, and plumbing requirements, or other problems affecting community.
GOE: 05.01.03 STRENGTH: L GED: R5 M5 L5 SVP: 9 DLU: 77

005.167-014 DRAINAGE-DESIGN COORDINATOR (waterworks)
Plans, designs, and coordinates construction of drainage systems in irrigation district, based on knowledge of soils, slope of land, and availability and economic use of existing drainage canals: Requests engineering surveys and soil tests to determine surface profile, types of soil, and characteristics such as salinity, water table, and areas of subnormal crop growth. Studies data and sketches scale drawing of tile and open ditch drains for area, using triangles, scales, dividers, and other drawing instruments. Indicates depth, spacing, and size of tiling for crop area leading to district drainage canals. Considers drainage cost to improve fertility, at least cost to farmer and district. Recommends deepening of drainage canals when field elevation prevents gravity flow, or provides for installation of sumps and electric pumps to drain low areas. Arranges for sale to farmers of district approved drainage materials, such as concrete wells and pipes. Determines need for securing easements and right-of-way deeds for district drainage structures. Inspects completed systems to determine that installation conforms to plan.
GOE: 05.01.03 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 77

005.167-018 FOREST ENGINEER (forestry; logging)
Lays out and directs construction, installation, and use of structures, equipment, and road or rail systems, and performs other engineering duties concerned with removal of logs from timber area: Surveys timber land and draws maps to show topographical features of area. Determines locations of loading points and storage areas and selects methods and equipment for handling logs. Lays out and directs construction of roads or rail network used to transport logs from cutting areas to loading sites and storage areas. Plans and directs construction of campsites, loading docks, bridges and culverts, equipment shelters, and water and sewage systems to maintain efficient and safe removal of logs from constantly shifting cutting areas.
GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

005.167-022 HIGHWAY-ADMINISTRATIVE ENGINEER (government ser.) alternate titles: director, traffic and planning
Administers statewide highway planning, design, construction, and maintenance programs: Coordinates activities of state highway engineering agencies. Reviews highway and bridge plans, location, contracts, and cost estimates for technical and legal accuracy, and approves acceptable proposals or makes corrective recommendations. Directs workers in research activities related to highway planning and engineering, and formulates highway engineering policies and procedures. Directs preparation of state agency budgets. Directs workers in preparation of reports to state and federal government officials and represents state highway commissioner at hearings with public officials, contractors, and engineering personnel. Speaks before civic groups and public gatherings to disseminate highway planning information and to solicit public support.
GOE: 11.05.03 STRENGTH: S GED: R6 M5 L6 SVP: 9 DLU: 77

005.167-026 PRODUCTION ENGINEER, TRACK (r.r. trans.)
Plans, directs, and coordinates, through supervisory personnel, activities of track maintenance crews of railway system: Analyzes engineering data and inspects repair site to determine priority of proposed track repair and maintenance projects. Coordinates scheduling of track maintenance and activities within designated region. Determines frequency of track use and project costs, utilizing computerized data and knowledge of railroad operations and maintenance expense to formulate recommendations for revising established project priorities. Reviews production reports and confers with engineering personnel to identify causes of low productivity of repair crews. Visits work sites to observe work crews and to inspect repairs. Directs engineering supervisors to correct substandard repairs.
GOE: 05.01.06 STRENGTH: L GED: R5 M3 L4 SVP: 9 DLU: 86

005.261-014 CIVIL ENGINEERING TECHNICIAN (profess. & kin.)
Assists CIVIL ENGINEER (profess. & kin.) 005.061-014 in application of principles, methods, and techniques of civil engineering technology: Reviews project specifications and confers with CIVIL ENGINEER (profess. & kin.) concerning assistance required, such as plan preparation, acceptance testing, evaluation of field conditions, design changes, and reports. Conducts materials testing and analysis, using tools and equipment and applying engineering knowledge necessary to conduct tests. Prepares reports detailing tests conducted and results. Surveys project sites to obtain and analyze topographical details of sites, using maps and surveying equipment. Drafts detailed dimensional drawings, such as those needed for highway plans, structural steel fabrication, and water control projects, performing duties as described under DRAFTER (profess. & kin.) Master Title. Calculates dimensions, profile specifications, and quantities of materials such as steel, concrete, and asphalt, using calculator. Inspects construction site to determine conformance of site to design specifications. May assist engineers to ensure that construction and repair of water and wastewater treatment systems meet pollution control requirements.
GOE: 05.03.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 86

005.281-010 DRAFTER, CIVIL (profess. & kin.) alternate titles: drafter, civil engineering; drafter, construction; drafter, engineering
Drafts detailed construction drawings, topographical profiles, and related maps and specifications used in planning and construction of civil engineering projects, such as highways, river and harbor improvements, flood control, and drainage: Reviews rough sketches, drawings, specifications, and other engineering data received from CIVIL ENGINEER (profess. & kin.) 005.061-014. Plots maps and charts showing profiles and cross-sections, indicating relation of topographical contours and elevations to buildings, retaining walls, tunnels, overhead power lines, and other structures. Drafts detailed drawings of structures and installations, such as roads, culverts, fresh water supply, sewage disposal systems, dikes, wharfs, and breakwaters. Computes volume of tonnage of excavations and fills and prepares graphs and hauling diagrams used in earthmoving operations. Performs other duties as described under DRAFTER (profess. & kin.) Master Title. May accompany survey crew in field to locate grading markers or to collect data required for revision of construction drawings. May specialize in drafting and modifying topographical maps from surveying notes and aerial photographs and be designated Drafter, Topographical (profess. & kin.). May use computer-assisted drafting (CAD) equipment and software and be designated Drafter, Civil (CAD) (profess. & kin.).
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 81

005.281-014 DRAFTER, STRUCTURAL (profess. & kin.)
Performs duties of DRAFTER (profess. & kin.) Master Title by drawing plans and details for structures employing structural reinforcing steel, concrete, masonry, wood, and other structural materials. Produces plans and details of foundations, building frame, floor and roof framing, and other structural elements.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

006 CERAMIC ENGINEERING OCCUPATIONS

This group includes occupations concerned with the design, manufacture, and application of products made from nonmetallic minerals and rocks; and the design, construction, and control of necessary equipment and tools for the manufacture of such products. Accessory techniques include those used in chemical, mechanical, and electrical engineering, and physics and mineralogy. Typical specializations are structural materials, abrasives, cements, glass, whiteware, and refractories. Occupations which are involved in only one phase o
ing, such as research, design, testing, sales, or project control, ar
Group 019.

006.061-010 CERAMIC DESIGN ENGINEER (profess. & kin.)
Designs ceramics manufacturing equipment and products, perform
as described under DESIGN ENGINEER, FACILITIES (profess. &
ter Title; DESIGN ENGINEER, PRODUCTS (profess. & kin.) Maste
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

006.061-014 CERAMIC ENGINEER (profess. & kin.)
Conducts research, designs machinery, develops processing techn
directs technical work concerned with manufacture of ceramic produc
testing of physical, chemical, and heat-resisting properties of materia
clays and silicas. Analyzes results of test to determine combination
rials which will improve quality of products. Conducts research int
of processing, forming, and firing of clays to develop new ceramic
such as ceramic machine tools, refractories for space vehicles, and
glass and steel furnaces. Designs equipment and apparatus for formi
and handling products. Coordinates testing activities of finished pr
characteristics, such as texture, color, durability, glazing, and refrac
erties. May specialize in one branch of ceramic production, such as b
crockery, tile, pipe, or refractories. May specialize in developing he
and corrosion-resistant materials for use in aerospace, electronics, a
energy fields, nuclear energy field.
GOE: 05.01.07 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

006.061-018 CERAMIC RESEARCH ENGINEER (profess. & ki
Conducts research to develop new ceramic products performing du
scribed under RESEARCH ENGINEER (profess. & kin.) Master Title
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

006.061-022 CERAMICS TEST ENGINEER (profess. & kin.)
Conducts tests on ceramic products performing duties as descri
TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

006.151-010 SALES ENGINEER, CERAMIC PRODUCTS (pr kin.)
Sells ceramic products and provides technical services for client p
duties as described under SALES ENGINEER (profess. & kin.) Maste
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

006.261-010 SCIENTIFIC GLASS BLOWER (glass products) alt tles: glass technician; glass technologist
Fabricates, modifies, and repairs experimental and laboratory glass
using variety of machines and tools, and provides technical advice to
and engineering staff on function, properties, and proposed design of
applying knowledge of glass technology: Confers with scientific or en
personnel to exchange information and suggest design modifications
proposed glass apparatus, such as distillation and high-vacuum syste
glass tubing of specified type, using cutting tools, such as glass saw
wire cutter. Heats glass tubing until pliable, using gas torch, and blow
and shapes tubing to specified form, using blowhose, handtools, an
pressure. Performs finishing operations to fabricate glass product or
using machines and equipment, such as *lapping* and polishing whe
welding and sandblasting machines, internal-plating equipment, and d
Measures products to verify dimensions, using *optical scanner*, mic
and calipers, and examines glass coloration for degree of internal str
polariscope, to determine annealing requirements. Anneals products,
nealing oven. Joins and seals subassemblies to assemble finished prod
gas torch, handtools, and vacuum pump. May operate special equipm
as radio-frequency-fusing machine, to bond glass to metal, quartz, and
materials. May identify glass of unknown composition by heating
torch and evaluating curvature, bondability, and color characteristics
rect and train GLASS BLOWERS, LABORATORY APPARATUS (gl
ucts; inst. & app.). May design fixtures for use in production of protot
products and prepare sketches for machine-shop personnel. May pre
estimates for prototype glass products. May requisition or recommend
of materials, tools, and equipment. May specialize in specific types of
entific apparatus and have knowledge of effects of special environ
glass, such as radioactivity, vacuums, gases, chemicals, and electricity.
GOE: 05.05.11 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

007 MECHANICAL ENGINEERING OCCUPATI

This group includes occupations concerned with application of prin
physics and engineering for the generation, transmission, and utilizatio
and mechanical power; and the design, production, installation, and
nance of fabricated products, tools, machines, machinery, and asso
auxiliary systems. Accessory techniques needed may be those used in e
metallurgical, nuclear, and civil engineering. Typical specializations a
and mechanical power generation, transmission, and utilization; hydra
strumentation; controls; automotive engineering; tooling; heating a
tilating; air-conditioning and refrigeration; bioengineering; pollution
systems engineering; research; design; testing; sales; and project control.

007.061-010 AUTOMOTIVE ENGINEER (auto. mfg.)
Develops improved or new designs for automotive structural memb
gines, transmissions, and associated automotive equipment or modifies

equipment on production vehicles, and directs building, modification, and testing of vehicle, using computerized work aids: Conducts experiments and tests on existing designs and equipment to obtain data on function of and performance of equipment. Analyzes data to develop new designs for motors, chassis, and other related mechanical, hydraulic, and electromechanical components and systems in automotive equipment. Designs components and systems to provide maximum customer value and vehicle function, including improved economy and safety of operation, control of emissions, and operational performance, at optimum costs. Directs and coordinates building, or modification of, automotive equipment or vehicle to ensure conformance with engineering design. Directs testing activities on components and equipment under designated conditions to ensure operational performance meets design specifications. Alters or modifies design to obtain specified functional and operational performance. May assist DRAFTER, AUTOMOTIVE DESIGN (auto. mfg.) 017.261-042 in developing structural design for auto body. May conduct research studies to develop new concepts in automotive engineering field.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 90

007.061-014 MECHANICAL ENGINEER (profess. & kin.)
Researches, plans, and designs mechanical and electromechanical products and systems, and directs and coordinates activities involved in fabrication, operation, application, installation, and repair of mechanical or electromechanical products and systems: Researches and analyzes data, such as customer design proposal, specifications, and manuals to determine feasibility of design or application. Designs products or systems, such as instruments, controls, robots, engines, machines, and mechanical, thermal, hydraulic, or heat transfer systems, applying knowledge of engineering principles [DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title]. Plans and directs engineering personnel in fabrication of test control apparatus and equipment, and development of methods and procedures for testing products or systems [TEST ENGINEER (profess. & kin.) Master Title]. Directs and coordinates fabrication and installation activities to ensure products and systems conform to engineering design and customer specifications. Coordinates operation, maintenance, and repair activities to obtain optimum utilization of machines and equipment. May design products and systems to interface machines, hardware, and software. May evaluate field installations and recommend design modifications to eliminate machine or system malfunctions. May specialize in specific field of mechanical engineering, such as heat transfer, hydraulics, electromechanics, controls and instrumentation, robotics, nuclear systems, tooling, air-conditioning and refrigeration; or in type of product, such as propulsion systems or machinery and mechanical equipment; or in type of work, such as steam or gas generation and distribution, steam plant engineering, or system planning.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 88

007.061-018 MECHANICAL-DESIGN ENGINEER, FACILITIES (profess. & kin.)
Designs and directs installation of plant systems or product lines performing duties as described under DESIGN ENGINEER, FACILITIES (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

007.061-022 MECHANICAL-DESIGN ENGINEER, PRODUCTS (profess. & kin.)
Designs mechanical or electromechanical products or systems performing duties as described under DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

007.061-026 TOOL DESIGNER (profess. & kin.)
Designs single- or multiple-edged machine cutting tools, such as broaches, milling-machine cutters, and drills, and related jigs, dies, and fixtures: Studies specifications, engineering blueprints, tool orders, and shop data and confers with engineering and shop personnel to resolve design problems related to material characteristics, dimensional tolerances, service requirements, manufacturing procedures, and cost. Applies algebraic and geometric formulas and standard tool engineering data to develop tool configuration. Selects standard items, such as bushings and tool bits, to incorporate into tool design. Draws preliminary sketches and prepares layout and detail drawings, using standard drafting tools and equipment or computer-assisted design/drafting equipment and software. Modifies tool designs according to trial or production service data to improve tool life or performance.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 88

007.061-030 TOOL-DESIGNER APPRENTICE (profess. & kin.)
Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

007.061-034 UTILIZATION ENGINEER (utilities)
Solves engineering problems concerned with industrial utilization of gas as source of power: Studies industrial processes to determine where and how application of gas fuel-consuming equipment can be made. Designs equipment to meet process requirements. Examines gas-powered equipment after installation to ensure proper functioning. Investigates equipment failures and difficulties and diagnoses faulty operation. Corrects or makes recommendations to maintenance crew to correct faults. Conducts safety, breakdown, and other engineering tests on gas fuel-consuming equipment to ascertain efficiency and safety of design and construction. May solve problems concerned with other gas-consuming equipment, such as air-conditioning and heating.
GOE: 05.01.06 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

007.061-038 APPLICATIONS ENGINEER, MANUFACTURING (profess. & kin.)
Plans, designs, and coordinates integration of machinery and equipment into manufacturing process of industrial establishment, applying knowledge of engineering and programming, and using computer, precision-measuring instruments, and drafting tools: Develops and writes equipment specifications, performance requirements, cost analysis, and proposal for integrating machinery and equipment, such as robots, *robot controllers*, and *programmable controllers* into manufacturing process, applying knowledge of mechanics, hydraulics, pneumatics, electrical wiring, electronics, programming, and manufacturing requirements, and using computer and calculator. Selects or designs robot end-of-arm tools to meet specifications, using robot manuals and either drafting tools or computer and software programs. Writes operating programs, using existing computer program, or writes own computer programs, applying knowledge of programming language and computer. Oversees installation to ensure machines and equipment are installed and functioning according to specifications. Tests ability of machines, such as robot, to perform tasks, using *teach pendant* and precision measuring instruments and following specifications. Confers with establishment personnel to implement operating procedures and resolve system malfunctions. Determines parts supply, maintenance tasks, safety procedures, and service schedule required to maintain machines and equipment in prescribed condition. Develops models of alternate processing methods to test feasibility of new applications of system components, and recommends implementation of improved procedures. Participates in meetings, seminars, and training sessions to stay apprised of new developments in field. Confers with workers in other departments, such as marketing, legal, and engineering, to provide technical information. May develop and conduct robot and related equipment training programs and demonstrate skills to trainees, using teach pendant, handtools, precision-measuring instruments, and following schematics, plant drawings, and manufacturer's specifications.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

007.061-042 STRESS ANALYST (profess. & kin.)
Conducts stress analyses on engineering designs for electronic components, systems, and products, using mathematical formulas and computer-aided engineering (CAE) systems: Analyzes engineering designs, schematics, and customer specifications to determine stress requirements on product. Formulates *mathematical model* or three-dimensional computer graphic model of product, using calculator or CAE system. Analyzes ability of product to withstand stress imposed by conditions such as temperature, loads, motion, and vibration, using mathematical formulas and computer simulation. Builds product model of wood or other material, performs physical stress tests on model, and evaluates test results. Consults with ELECTRONICS-DESIGN ENGINEER (profess. & kin.) 003.061-034 to recommend design modifications of product based on results of stress analysis. Prepares stress analysis reports.
GOE: 05.01.04 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 86

007.151-010 SALES ENGINEER, MECHANICAL EQUIPMENT (utilities)
Sells mechanical equipment and provides technical-services to clients as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

007.161-010 DIE DESIGNER (machine shop) alternate titles: design leader; die design drafter; die developer
Develops plans for single stage or progressive stage dies for stamping, forming, forging, or extrusion presses, according to blueprints of product and knowledge of press characteristics and process limitations: Drafts drawings of dies necessary to form complete forging, stamping, or other part. Determines sequence and number of die stages in which single or progressive cutting, punching, and forming will be accomplished, and type of die sets required to produce complete part, based on knowledge of dies, forming processes, and machines. Drafts scale drawings of each die set, delineating contours and dimensions for manufacture of die. Compares part drawings with wood patterns of cast dies to determine correctness of pattern dimensions and form. May observe setup and tryout of newly developed die set in production machine to determine need for redesign or readiness for production use.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

007.161-014 DIE-DESIGNER APPRENTICE (machine shop)
Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

007.161-018 ENGINEERING ASSISTANT, MECHANICAL EQUIPMENT (profess. & kin.) alternate titles: mechanical design technician
Develops detailed design drawings and related specifications of mechanical equipment, according to engineering sketches and design proposal specifications: Analyzes engineering sketches, specifications, and related data and drawings to determine design factors, such as size, shape, and arrangement of parts. Sketches rough layout of machine and computes angles, weights, surface areas, dimensions, radii, clearances, tolerances, leverages, and location of holes. Computes magnitude, direction, and point of application of tension, compression, and bending forces, and develops geometric shape of machine parts to accommodate operating loads. Drafts detailed multiview drawings of machine and

subassemblies, including specifications for gear ratios, bearing loads, and direction of moving parts, using engineering data and standard references. Compiles and analyzes test data to determine effect of machine design on various factors, such as temperature, pressures, speed, horsepower, and fuel consumption. Modifies machine design to correct operating deficiencies or to reduce production problems. May measure machine and parts during production to ensure compliance with design specifications, using precision measuring instruments. May specialize in specific type of machine, such as air-cooled internal combustion engines, diesel engines, or machine tools. May use computer-assisted design/drafting equipment and software to develop designs.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 88

007.161-022 MECHANICAL RESEARCH ENGINEER (profess. & kin.)
Conducts research to develop mechanical equipment and machinery, performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

007.161-026 MECHANICAL-ENGINEERING TECHNICIAN (profess. & kin.) alternate titles: engineering technician; experimental technician; laboratory-development technician; mechanical technician
Develops and tests machinery and equipment, applying knowledge of mechanical engineering technology, under direction of engineering and scientific staff: Reviews project instructions and blueprints to ascertain test specifications, procedures, objectives, test equipment, nature of technical problem, and possible solutions, such as part redesign, substitution of material or parts, or rearrangement of parts or subassemblies. Drafts detail drawing or sketch for drafting room completion or to request parts fabrication by machine, sheet metal or wood shops. Devises, fabricates, and assembles new or modified mechanical components or assemblies for products, such as industrial equipment and machinery, power equipment, servosystems, machine tools, and measuring instruments. Sets up and conducts tests of complete units and components under operational conditions to investigate design proposals for improving equipment performance or other factors, or to obtain data for development, standardization, and quality control. Analyzes indicated and calculated test results in relation to design or rated specifications and test objectives, and modifies or adjusts equipment to meet specifications. Records test procedures and results, numercial and graphical data, and recommendations for changes in product or test method.
GOE: 05.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

007.161-030 OPTOMECHANICAL TECHNICIAN (optical goods; photo. appar.)
Applies engineering theory and practical knowledge, under direction of engineering staff, to build and test prototype optomechanical devices to be used in such equipment as aerial cameras, gun sights, and telescopes: Reviews project instructions, and preliminary specifications to identify and plan requirements for parts fabrication, purchase, assembly, and test. Prepares sketches and writes work orders and purchase requests for items to be furnished by others, and follows up delivery. Designs, builds, or modifies fixtures used to assemble parts. Lays out cutting lines for machining, using drafting tools. Assembles and adjusts parts and related electrical units of prototype to prepare for test. Sets up prototype and test apparatus, such as control console, collimator, recording equipment, and cables in accordance with specifications. Operates controls of test apparatus and prototype to observe and record test results. Computes test data on laboratory forms for engineers. Confers in technical meetings, recommending design and material changes to reduce cost and lead time. May be assigned as group leader to coordinate work of technicians, model makers, and others assigned to assist.
GOE: 05.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

007.161-034 TEST ENGINEER, MECHANICAL EQUIPMENT (profess. & kin.)
Conducts tests on mechanical equipment performing duties as described under TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

007.161-038 SOLAR-ENERGY-SYSTEMS DESIGNER (profess. & kin.)
Designs solar domestic hot water and space heating systems for new and existing structures, applying knowledge of energy requirements of structure, local climatological conditions, solar technology, and thermodynamics: Estimates energy requirements of new or existing structures, based on analysis of utility bills of structure, calculations of thermal efficiency of structure, and prevailing climatological conditions. Determines type of solar system, such as water, glycol, or silicone, which functions most efficiently under prevailing climatological conditions. Calculates on-site heat generating capacity of different solar panels to determine optimum size and type of panels which meet structure's energy requirements. Arranges location of solar system components, such as panel, pumps, and storage tanks, to minimize length and number of direction changes in pipes and reconstruction of existing structures. Studies engineering tables to determine size of pipes and pumps required to maintain specified flow rate through solar panels. Specifies types of electrical controls, such as differential thermostat, temperature sensors, and solenoid valves, compatible with other system components, using knowledge of control systems. Completes parts list, specifying components of system. Draws wiring, piping, and other diagrams, using drafting tools. May inspect structures to compile data used in solar system design, such as structure's angle of alignment with sun and temperature
of incoming cold water. May inspect construction of system to ensu
ence to design specifications.
GOE: 05.03.07 STRENGTH: L GED: R5 M4 L4 SVP: 5 DLU: 86

007.167-010 DIE-DRAWING CHECKER (profess. & kin.)
Examines die design drawings prepared by DIE DESIGNER (mach
for accuracy of design detail and to assure production feasibility of
Computes dimensions of drawings to check accuracy of figures ar
placement of layout. Ascertains that production parts can be fabric
dies as designed by applying thorough knowledge of machine capac
turns erroneous drawings to original designer for correction, indicatin
or in writing, changes to be made.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

**007.167-014 PLANT ENGINEER (profess. & kin.) alternate titles
engineer; superintendent, mechanical**
Plans, directs, and coordinates activities concerned with design, con
modification, and maintenance of equipment and machinery in industr
Establishes standards and policies for pollution control, installation,
tion, quality control, testing, operating procedure, inspection, and ma
of equipment, according to engineering principles and safety regulat
rects maintenance of plant buildings and coordinates requirements for
signs, surveys, and maintenance schedules for equipment and machir
pares bid sheets and contracts for construction and facilities acquisiti
newly installed machines and equipment to ensure fulfillment of contr
fications.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 87

**007.167-018 TOOL PROGRAMMER, NUMERICAL CONTROL
dustry) alternate titles: computer-programmer, n
control; programmer, numerical control; tool progra**
Plans numerical control program to control contour-path machining
parts on automatic machine tools: Analyzes drawings, sketches, and de
of part to determine dimension and configuration of cuts, selection o
tools, and machine speeds and feed rates, according to knowledge of
shop processes, part specifications, and machine capabilities. Determ
erence points and direction of machine cutting paths. Computes angula
ear dimensions, radii, and curvatures, and outlines sequence of opera
quired to machine part. Prepares geometric layout on graph paper or us
puter-assisted drafting software to show location of reference points a
tion of cutting paths, using drafting instruments or computer. Writes in
sheets and cutter lists to guide setup and operation of machine. Writes
of machine instructions in symbolic language to encode numerical co
or direct numerical control data base to regulate movement of machi
cutting path. Compares encoded tape or computer printout with orig
gram sheet to assure accuracy of machine instructions. Revises pro
eliminate instruction errors or omissions. Observes operation of ma
trial run to prove taped or programmed instructions.
GOE: 05.01.06 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 87

007.181-010 HEAT-TRANSFER TECHNICIAN (profess. & kin.)
Plans requirements for fabricating, installing, testing, and servicing
control and heat transfer assemblies and systems to assist engineering
nel, utilizing knowledge of heat transfer technology and engineering
Calculates required capacities for equipment units of proposed system
specified performance and submits data to engineering personnel for
Studies supplier catalogs and technical data to recommend equipment
lections for system. Prepares unit design layouts and detail drawings
ricating parts and assembling system. Estimates cost factors, such as l
material for purchased and fabricated parts, and costs for assembling
and installing in customer's premises. Fabricates nonstandard parts fo
using metalworking machinery and assembles system, using handt
power tools. Installs test fixtures, apparatus, and controls and condu
ational tests under specified conditions. Analyzes test data and prepar
for evaluation by engineering personnel. Installs system in customer
and tests operational performance for compliance with contract spec
and applicable codes. Diagnoses special service problems of systen
service contract and writes instructions for service or repair personnel.
designated according to specialty as Air-Conditioning Technician (pr
kin.); Heating Technician (profess. & kin.); Refrigerating Technician
& kin.)
GOE: 05.03.07 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

**007.261-010 CHIEF DRAFTER (profess. & kin.) alternate title
out; lay-out drafter**
Draws rough layout and sketches, and assigns work to and directs
nate drafting workers: Sketches layout according to design proposal an
ard specifications and practices. Assigns drafting of detail drawings to
nate personnel and verifies accuracy and completeness of finished c
May perform duties described under DRAFTER (profess. & kin.) Maste
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

007.261-014 DRAFTER, CASTINGS (profess. & kin.)
Drafts detailed drawings for castings which require special knowle
attention to shrinkage allowances and such factors as minimum radii
and rounds. Performs other duties as described under DRAFTER (pr
kin.) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

007.261-018 DRAFTER, PATENT (profess. & kin.)

Drafts clear and accurate drawings of varied sorts of mechanical devices for use of LAWYER, PATENT (profess. & kin.) in obtaining patent rights. Performs other duties as described under DRAFTER (profess. & kin.) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

007.261-022 DRAFTER, TOOL DESIGN (profess. & kin.)

Drafts detailed drawing plans for manufacture of tools, usually following designs and specifications indicated by TOOL DESIGNER (profess. & kin.). Performs other duties as described under DRAFTER (profess. & kin.) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

007.267-010 DRAWINGS CHECKER, ENGINEERING (profess. & kin.) alternate titles: standards analyst

Examines engineering drawings of military and commercial parts, assemblies, and installations to detect errors in design documents. Compares figures and lines on production drawing or diagram with production layout, examining angles, dimensions, bend allowances, and tolerances for accuracy. Determines practicality of design, material selection, available tooling, and fabrication process, applying knowledge of drafting and manufacturing methods. Confers with design personnel to resolve drawing and design discrepancies. May specialize in checking specific types of designs, such as mechanical assemblies, microelectronic circuitry, or fluid-flow systems. May operate copier equipment to make duplicates of designs.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 88

007.267-014 TOOL DESIGN CHECKER (aircraft mfg.) alternate titles: tool drawing checker

Examines tool drawings prepared by TOOL DESIGNER (profess. & kin.) 007.061-026 for inaccuracies of detail and evaluates overall tool design for fit, form, and function, utilizing knowledge of engineering principles, tool design methods, and manufacturing processes. Measures drawing dimensions, and compares figures with dimensions on original layout, specifications, or sample part to verify measurements conform to scale. Marks verified or out-of-scale dimensions on drawings. Inspects lines and figures on drawings for clarity. Evaluates overall tool design for functionality, conformance to drawing standards and design specifications, and manufacturing feasibility. Reviews material requirements for standardization and conformance to industry specification manuals. Discusses design, manufacturing, and related issues with engineering, production, or other personnel. Approves or rejects design. May operate computer to examine and evaluate computer-generated tool designs.
GOE: 05.01.07 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 88

007.281-010 DRAFTER, MECHANICAL (profess. & kin.) alternate titles: drafter, engineering

Drafts detailed drawings of machinery and mechanical devices, indicating dimensions and tolerances, fasteners and joining requirements, and other engineering data. Reviews rough sketches and engineering specifications received from engineer or architect. Drafts multiple-view assembly, subassembly, and layout drawings as required for manufacture and repair of machines and equipment. Performs other duties as described under DRAFTER (profess. & kin.) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 87

007.362-010 NESTING OPERATOR, NUMERICAL CONTROL (aircraft mfg.) alternate titles: computer-numerical-control nesting operator; pattern data operator

Operates computer to lay out graphic display of parts to be machined in optimum arrangement (nest) and generate control media for numerical-control drilling, routing, and cutting machines. Reviews shop orders to determine job specifications and nesting requirements. Sorts shop orders into groups according to compatibility factors, such as quantity and shape of parts, and type, size, alloy, and gauge of material to be machined to produce nest that maximizes material utilization and minimizes machine setup and operation. Enters computer commands to retrieve stored parts data and graphic displays, such as simulated patterns or templates, and displays and manipulates part images on computer screen into optimum arrangement. Calculates and codes machine controlling criteria, such as table movement, type and size of cutting and drilling tools, spindle location, and machining start point, feed rate, and speed, utilizing knowledge of numerical-control machine operation. Enters commands to title and store nest layouts in computer memory and to build and maintain source files. Keys in commands to transfer nest data, listings, or layouts to other media, such as hardcopy, tape, or floppy disk, or to route nest data by direct link to direct-numerical-control machines. Loads and unloads disk packs, tapes, or floppy disks. May operate digitizing equipment to produce patterns. May discuss nesting or machining problems with machine operators or other personnel.
GOE: 05.03.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 89

008 CHEMICAL ENGINEERING OCCUPATIONS

This group includes occupations concerned with the application of chemistry and other sciences, such as physics and mathematics, and of engineering principles to manufacturing operations which involve chemical processes. Also includes the design, construction, and operation of industrial plants carrying out chemical processes. Typical specializations are heat transfer and energy conversion, food and pharmaceutical products, forest products, petrochemicals and fuels, and materials handling.

008.061-010 ABSORPTION-AND-ADSORPTION ENGINEER (profess. & kin.) alternate titles: adsorption-and-absorption engineer

Designs equipment and devises chemical processes to remove and separate components of gas mixture or liquid solutions by absorption and adsorption, using knowledge of chemistry and engineering. Devises processes and directs workers, using equipment, such as crushers, grinders, kilns, screens, pumps, compressors, pipelines, valves, tanks, and separators. Directs workers controlling flow of liquid or gas through an adsorbent, such as fuller's earth, clays, carbons, charcoal, and bone char in granular form (percolation method); or mixing adsorbent with liquid or gas and removing adsorbent by filtration, settling, or combination of both (contact filtration method). Directs workers, using absorption method to remove soluble constituent of gas or vapor by dissolving it in a liquid, using packed columns or towers into which liquid is sprayed.
GOE: 05.01.08 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

008.061-014 CHEMICAL DESIGN ENGINEER, PROCESSES (profess. & kin.)

Designs equipment and processes to produce chemical changes in elements and compounds, performing duties as described under DESIGN ENGINEER, FACILITIES (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

008.061-018 CHEMICAL ENGINEER (profess. & kin.)

Designs equipment and develops processes for manufacturing chemicals and related products utilizing principles and technology of chemistry, physics, mathematics, engineering and related physical and natural sciences. Conducts research to develop new and improved chemical manufacturing processes. Designs, plans layout, and oversees workers engaged in constructing, controlling, and improving equipment to carry out chemical processes on commercial scale. Analyzes operating procedures and equipment and machinery functions to reduce processing time and cost. Designs equipment to control movement, storage, and packaging of solids, liquids, and gases. Designs and plans measurement and control systems for chemical plants based on data collected in laboratory experiments and pilot plant operations. Determines most effective arrangement of unit operations such as mixing, grinding, crushing, heat transfer, size reduction, hydrogenation, distillation, purification, oxidation, polymerization, evaporation, and fermentation, exercising judgement to compromise between process requirements, economic evaluation, operator effectiveness, and physical and health hazards. Directs activities of workers who operate and control such equipment as condensers, absorption and evaporation towers, kilns, pumps, stills, valves, tanks, boilers, compressors, grinders, pipelines, electromagnets, and centrifuges to effect required chemical or physical change. Performs tests and takes measurements throughout stages of production to determine degree of control over variables such as temperature, density, specific gravity, and pressure. May apply principles of chemical engineering to solve environmental problems. May apply principles of chemical engineering to solve bio-medical problems. May develop electro-chemical processes to generate electric currents, using controlled chemical reactions or to produce chemical changes, using electric currents. May specialize in heat transfer and energy conversion, petrochemicals and fuels, materials handling, pharmaceuticals, foods, forest products, or products such as plastics, detergents, rubber, or synthetic textiles. May be designated according to area of specialization.
GOE: 05.01.07 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

008.061-022 CHEMICAL RESEARCH ENGINEER (profess. & kin.)

Conducts research on chemical processes and equipment, performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

008.061-026 CHEMICAL-TEST ENGINEER (profess. & kin.)

Conducts tests on chemicals, fuels, and processes performing, duties as described under TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

008.151-010 CHEMICAL-EQUIPMENT SALES ENGINEER (profess. & kin.)

Sells chemical processing equipment and provides technical services to clients, performing duties as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

008.167-010 TECHNICAL DIRECTOR, CHEMICAL PLANT (profess. & kin.) alternate titles: technical manager, chemical plant

Plans and coordinates technical activities in chemical plant, pilot-plant, or chemical-engineering department. Directs activities of engineering personnel engaged in preparing plans, designs, cost estimates, and specifications for experimental, maintenance, or modernization programs to determine most feasible approach to technical problems. Directs activities of engineers and technicians setting up prototype units designed to perform experimental operations. Coordinates activities of workers engaged in testing and metering unit operations, and collecting and interpreting processing records. Evaluates performance records of chemical processes and physical operations and submits report of findings to management. May prepare reports on cost of plant operation.
GOE: 05.01.08 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

008.261-010 CHEMICAL-ENGINEERING TECHNICIAN (profess. & kin.)

Applies chemical engineering principles and technical skills to assist CHEMICAL ENGINEER (profess. & kin.) in developing, improving, and testing

chemical-plant processes, products, and equipment: Prepares charts, sketches, diagrams, flow charts, and compiles and records engineering data to clarify design details or functional criteria of chemical processing and physical operation units. Participates in fabricating, installing, and modifying equipment to ensure that critical standards are met. Tests developmental equipment and formulates standard operating procedures. Tests processing equipment and instruments to observe and record operating characteristics and performance of specified design or process. Observes chemical or physical operation processes and recommends modification or change. Observes and confers with equipment operators to ensure specified techniques are used. Writes technical reports and submits finding to CHEMICAL ENGINEER (profess. & kin.). Performs preventive and corrective maintenance of chemical processing equipment. May prepare chemical solutions for use in processing materials, such as synthetic textiles, detergents, and fertilizers following formula. May set up test apparatus. May instruct or direct activities of technical personnel. May assist in developing and testing prototype processing systems and be designated Chemical-Engineering Technician, Prototype-Development (profess. & kin.). May assist in development of pilot-plant units and be designated Pilot-Plant Research-Technician (petrol. refin.).
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

010 MINING AND PETROLEUM ENGINEERING OCCUPATIONS

This group includes occupations concerned with the extraction of minerals from the earth, including planning the development of the mine. Accessory techniques include those used in geology and in civil, mechanical, electrical, metallurgical, and chemical engineering. Typical specializations are according to activities involved, such as exploration, extraction, mine layout, oil well development, safety, research, and supervision and management; or according to type of substance involved, such as metals, nonmetallic minerals, coal, or petroleum and natural gas.

010.061-010 DESIGN ENGINEER, MINING-AND-OIL-FIELD EQUIPMENT (profess. & kin.)

Designs mining and oil field machinery, performing duties as described under DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

010.061-014 MINING ENGINEER (mine & quarry)

Conducts research to determine location and methods of extracting minerals, such as metallic ores and nonmetallic substances, such as coal, stone, and gravel: Conducts or collaborates in geological exploration, and reviews maps and drilling logs to determine location, size, accessibility, and estimated value of mineral deposit. Determines methods to extract minerals, considering factors such as safety, operational costs, deposit characteristics, overburden depth, and surrounding strata. Plans, recommends, and coordinates mining process, type and capacity of haulage equipment, such as power shovels and trucks, and labor utilization. Lays out and directs mine construction operations, such as location and development of shafts, tunnels, chambers, position of excavation benches (levels), and access roads. Designs, implements, and monitors facility projects, such as water and power supply, ventilation system, rock-dust and radon gas control, drainage, rail and conveyor systems, and material cleaning, grading, and reduction systems. May devise methods and locations to store and replace excavated soil to reclaim mine sites. May analyze labor requirements, equipment needs, and operational costs to compute and prepare annual budget reports. May apply knowledge of mining engineering to solve problems concerned with environment.
GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 80

010.061-018 PETROLEUM ENGINEER (petrol. & gas)

Analyzes technical and cost factors to plan methods to recover maximum oil and gas in oil-field operations, utilizing knowledge of petroleum engineering and related technologies: Examines map of subsurface oil and gas reservoir locations to recommend placement of wells to maximize economical production from reservoir. Evaluates probable well production rate during natural or stimulated-flow production phases. Recommends supplementary processes to enhance recovery involving stimulation of flow by use of processes, such as pressurizing or heating in subsurface regions. Analyzes recommendations of reservoir engineering specialist for placement of well in oil field. Develops well drilling plan for management approval, specifying factors including drilling time, number of special operations, such as directional drilling, and testing, and material requirements and costs including well casing and drilling muds. Provides technical consultation during drilling operations to resolve problems such as bore directional change, unsatisfactory drilling rate or invasion of subsurface water in well bore. Advises substitution of drilling mud compounds or tool bits to improve drilling conditions. Inspects well to determine that final casing and tubing installations are completed. Plans oil and gas field recovery containers, piping, and treatment vessels to receive, remove contaminants, and separate oil and gas products flowing from well. Monitors production rate of gas or oil from established wells and plans rework process to correct well production, such as repacking of well bore and additional perforation of subsurface sands adjacent to well bottom. May apply knowledge of petroleum engineering to solve problems concerned with environment [ENVIRONMENTAL ENGINEER (profess. & kin.)]. May be designated according to specialty as Development Engineer, Geothermal Operations (profess. & kin.); Drilling Engineer (petrol. & gas); Production Engineer (petrol. & gas); Reservoir Engineer (petrol. & gas).
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

010.061-022 RESEARCH ENGINEER, MINING-AND-OIL-W EQUIPMENT (mine & quarry; petrol. & gas)

Conducts research to develop improved mining and oil well equipment forming duties as described under RESEARCH ENGINEER (profess. & Master Title.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

010.061-026 SAFETY ENGINEER, MINES (mine & quarry) alterna tles: director, safety

Inspects underground or open-pit mining areas and trains mine personn ensure compliance with state and federal laws and accepted mining prac designed to prevent mine accidents. Inspects mine workings to detect u timbers, cribbing, roof bolts, electric wiring, elevators, explosives sto equipment, and working conditions. Examines walls and roof surfaces fo dence of strata faults indicating cave-in or rock slide hazards. Tests air to c concentrations of toxic gases and explosive dusts, using safety lamp, me detector, carbon monoxide register, and anemometer. Recommends alterati installation of ventilation shafts, partitions, or equipment to remedy inade air circulation of air-conditioning. Applies principles of mining engineerin human engineering to design protective equipment and safety devices for machinery. Gives instructions to mine personnel in safe working practice first aid, and strives to promote and maintain safety-mindedness of worker vestigates explosions, fires, and accidents and reports causes and ommendations for remedial action to insurance companies, mine manage and state authorities. May lead rescue activities during emergencies and tain rescue equipment.
GOE: 05.01.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 80

010.061-030 TEST ENGINEER, MINING-AND-OIL-FIELD EQ MENT (mine & quarry; petrol. & gas)

Conducts tests on mining and oil field machinery and equipment, perfo duties as described under TEST ENGINEER (profess. & kin.) Master Title
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

010.131-010 WELL-LOGGING CAPTAIN, MUD ANALYSIS (petr gas) alternate titles: mud-analysis-well-logging captain

Supervises and coordinates activities of workers engaged in analysis well drilling mud and well cuttings during drilling operations to detect pre of oil or gas and identify productive strata. Coordinates work of WELL- GING OPERATORS, MUD ANALYSIS (petrol. & gas) engaged in conti sampling and analysis of mud circulating through wells being drilled and p ration of mud analysis logs. Reviews analysis made by workers of cor from wells to determine nature of earth formations penetrated. Summariz data and core analysis records for engineering personnel. Initiates or ommends personnel actions, such as pay increase, transfer or discipline.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

010.151-010 SALES ENGINEER, MINING-AND-OIL-WELL EQ MENT AND SERVICES (mine & quarry; petrol. & gas

Sells mining and oilwell equipment and provides technical services to c performing duties as described under SALES ENGINEER (profess. & Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

010.161-010 CHIEF ENGINEER, RESEARCH (petrol. & gas)

Coordinates research activities to develop new and improved metho drilling wells and producing oil or gas: Directs, through subordinate engine personnel, planning and progress of experimental projects in drilling an duction operations, such as projects investigating composition of drilling recovery of natural gasoline from crude oil and gas solutions, or dehyd of crude petroleum. Assists CHIEF PETROLEUM ENGINEER (petrol. & in solution of technical operating problems. May direct research activit geochemical or other petroleum prospecting methods.
GOE: 05.01.01 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

010.161-014 CHIEF PETROLEUM ENGINEER (petrol. & gas)

Plans and directs engineering activities of a petroleum company to de oil fields and produce oil and gas: Formulates programs for developin fields, planning schedules for drilling wells and for constructing pumping crude-oil treating units, and other production facilities. Coordinates pro activities with civil, electrical, and other engineering departments. D through subordinate workers, selection, installation, use, and repair of oi equipment. Directs PETROLEUM ENGINEERS (petrol. & gas) in engine work concerned with drilling new wells and producing flow of oil or gas wells, in maintaining well logs, and in other engineering activities. Direct oratory and field research to develop new or to improve old methods and ment for recovery of oil and gas. Keeps abreast of new developments in leum engineering. Selects, trains, and promotes engineering personnel. M rect mechanical, civil, electrical, and other engineering activities. May engineering and drilling activities in developing geothermal field and be ignated Director, Geothermal Operations (petrol. & gas).
GOE: 05.01.08 STRENGTH: S GED: R6 M6 L6 SVP: 9 DLU: 77

010.161-018 OBSERVER, SEISMIC PROSPECTING (petrol. & ga ternate titles: field seismologist; geophysical operator tion-plotter operator

Plans and directs activities of field party engaged in collecting seism used in prospecting for oil or gas: Designates location of shot holes and

ment of seismometers and connecting cables over blast area according to plot drawn by SURVEYOR, GEOPHYSICAL PROSPECTING (petrol. & gas). Plans and directs activities of workers engaged in laying out seismographic measuring apparatus over test area. Surveys area to verify that equipment is in position specified and tests electrical circuits for continuity. Directs SHOOTER, SEISMOGRAPH (petrol. & gas) to detonate charges placed in shot holes, using short wave radio. Observes reaction of recording instruments to detect irregularity. Develops picture of seismic wave pattern in photographic developing solution. Examines wave pattern on subterranean strata for evidence of distortion caused by electronic crossfeed, short circuit, or loose connection. Orders redrilling of shot holes and equipment layout to repeat shot. Directs repair of or repairs instruments or equipment, using manufacturers' manuals and handtools.
GOE: 05.03.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

010.167-010 CHIEF ENGINEER (petrol. & gas; pipe lines)
Directs activities of workers in engineering department of petroleum production or pipeline company and advises management on engineering problems. Apportions work among engineering staff according to specialized training. Reviews engineering designs for neatness and accuracy. Directs engineering personnel in formulating plans, designs, cost estimates, and specifications for oil field or pipeline construction, maintenance, and modernization programs. Supervises engineering office workers computing operating budgets, compiling reports, and conducting special investigations and studies to evaluate efficiency of engineering programs. May apply knowledge of petroleum engineering to coordinate work of engineers engaged in solving problems concerned with environment [ENVIRONMENTAL ENGINEER (profess. & kin.)]. May be designated according to engineering department supervised as Chief Engineer, Drilling And Recovery (petrol. & gas); Chief Engineer, Pipeline (petrol. & gas); Chief Engineer, Production (petrol. & gas); Chief, Reservoir Engineering (petrol. & gas).
GOE: 05.01.08 STRENGTH: S GED: R6 M6 L6 SVP: 9 DLU: 77

010.167-014 DISTRICT SUPERVISOR, MUD-ANALYSIS WELL LOGGING (petrol. & gas) alternate titles: mud-analysis-well-logging supervisor, district; mud engineer; mud-logging superintendent
Plans and directs mud-sample testing operations. Consults with SUPERINTENDENT, OIL FIELD DRILLING (petrol. & gas) and interprets drilling logs to determine status of wells being drilled. Plans and coordinates itinerary for WELL-LOGGING CAPTAIN, MUD ANALYSIS (petrol. & gas), WELL-LOGGING OPERATOR, MUD ANALYSIS (petrol. & gas) and other members of mobile field-laboratory crews to obtain maximum utilization of personnel with minimum disruption of drilling operations. Interprets mud analysis logs obtained by crews, for PETROLEUM ENGINEER (petrol. & gas).
GOE: 05.02.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

010.167-018 SUPERINTENDENT, OIL-WELL SERVICES (petrol. & gas) alternate titles: manager, oil-well services
Directs activities concerned with providing technical services, such as electrical well logging, gun perforating, directional or caliper surveying, and cementing, acidizing, and formation fracturing, to assist in solving special oil well drilling and production problems. Advises SUPERINTENDENT, DRILLING AND PRODUCTION (petrol. & gas) on specific servicing problems and recommends use of specialized tools, techniques, and services. Directs organization and training of personnel, and directly or through subordinate personnel supervises servicing operations. Supervises repair and maintenance of equipment. Keeps records of operations and prepares reports.
GOE: 05.02.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

010.261-010 FIELD ENGINEER, SPECIALIST (petrol. & gas)
Collects fluid samples from oil-or gas-bearing formations and analyzes sample to determine potential productivity of formation. Moves controls on panel to fire charge into formation and to operate hydraulic mechanism which thrusts and seals probe into perforation. Analyzes fluid in sample to determine potential productivity of formation.
GOE: 05.03.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

010.261-014 OBSERVER, ELECTRICAL PROSPECTING (petrol. & gas) alternate titles: electrical-logging engineer; electrical-prospecting operator
Measures resistance of earth formations to electrical charges, using electrical apparatus to obtain data for locating rock strata favorable to further petroleum exploration activities. Transports electrical equipment and instruments to designated locations, and directs and assists in laying out and connecting cables, electrodes, instrument panels, and other electrical equipment. Adjusts electrical instruments to eliminate electrical interferences from earth currents or weather conditions. Opens and closes circuits to send electrical current through electrodes into earth. Reads dials and records data of millivoltmeter readings at various receptor points along cable to detect loss of potential due to resistance of earth formations. Diagnoses cause of malfunctioning of instruments and cables and makes repairs.
GOE: 05.03.04 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

010.261-018 OBSERVER, GRAVITY PROSPECTING (petrol. & gas) alternate titles: gravity-prospecting operator; recorder, gravity prospecting
Records readings of gravity meter, torsion balance, and other gravity-measuring instruments at various points in terrain to obtain data regarding gravity characteristics indicating potential source of metallic ore or petroleum deposits: Sets up or directs set-up of instruments at specified location and records readings. Examines readings for accurate registration and adjusts instruments to specifications. Reads thermometers, barometers, and other instruments and records variations in temperature, barometric pressure, elevation, and other physical factors that affect instrument readings. May be designated according to instrument used as Gravity-Meter Observer (mine & quarry; petrol. & gas); Magnetometer Operator (mine & quarry; petrol. & gas).
GOE: 05.03.04 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

010.261-022 SURVEYOR, OIL-WELL DIRECTIONAL (petrol. & gas) alternate titles: oil-well-logging engineer
Measures sonar, electrical, or radioactive characteristics of earth formations in oil- or gas-well boreholes to evaluate productivity of oil- or gas-bearing reservoirs, using sonic, electronic, or nuclear measuring instruments. Signals HOISTING ENGINEER (any industry) to lower instruments into well, observing oscillograph and meters on control panel to verify operating condition of instruments. Turns dials on control panel to adjust instrument for specified recording and starts recording device when instruments reach bottom of borehole. Prints copies of recorded graphs in truck darkroom [DEVELOPER (photofinishing)]. Interprets graphs for customer to indicate identity, porosity, oil- or gas-bearing content, and productivity of geological formations. Measures borehole diameters, direction of borehole, and inclination of geological strata, using microcalipers, directional indicators (clinometers), and dipmeters. May be designated according to measuring instruments used as Acoustical Logging Engineer (petrol. & gas); Nuclear Logging Engineer (petrol. & gas).
GOE: 05.03.04 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

010.261-026 TEST-ENGINE EVALUATOR (petrol. refin.) alternate titles: research-test-engine evaluator
Collects and assists in evaluation of data obtained in testing petroleum fuels and lubricants under simulated operating conditions. Inspects engines after test runs have been made by TEST-ENGINE OPERATOR (petrol. refin.), for wear, deposits, and defective parts, using microscope and precision weighing and measuring devices to obtain accurate data. Records findings and assists in analyzing data. Assists in dismantling and reassembling engines during test runs. May obtain and analyze samples of engine-exhaust gas.
GOE: 05.01.04 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 77

010.267-010 SCOUT (petrol. & gas)
Investigates and collects information concerning oil well drilling operations, geological and geophysical prospecting, and land and lease contracts from other oil fields, the press, lease brokers, individuals, and organizations leading to possible discovery of new oil fields: Interviews individuals and observes field operations to obtain data, such as locations and depths of oil or gas wells or exploratory boreholes or of producing wells, subsurface and geophysical survey results, methods of well completion, and volume of oil or gas flow. Collects rock samples and cuttings and samples of oil or gas from wells. Inspects cores and notes recurrence of specific strata in various boreholes to confirm or disprove concepts of stratigraphy. Obtains information on purpose and locations of lease purchases, royalty contracts, and other agreements made by competitive companies. Observations may be confined to prospecting or to include drilling and producing activities. Must have knowledge of production engineering, oil field practices, and geology. May sketch subsurface contours of geological formations as indicated by data obtained. May negotiate with landowners for drilling leases, ore royalties, and land options [LEASE BUYER (mine & quarry; petrol. & gas)].
GOE: 05.03.04 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 77

010.281-010 DRAFTER, DIRECTIONAL SURVEY (petrol. & gas)
Plots oil- or gas-well boreholes from photographic subsurface survey recordings and other data. Computes and represents diameter, depth, degree, and direction of inclination, location of equipment, and other dimensions and characteristics of borehole. Performs other duties as described under DRAFTER (profess. & kin.) Master Title.
GOE: 05.03.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

010.281-014 DRAFTER, GEOLOGICAL (petrol. & gas)
Draws maps, diagrams, profiles, cross sections, directional surveys, and subsurface formations to represent geological or geophysical stratigraphy and locations of gas and oil deposits, performing duties as described under DRAFTER (profess. & kin.) Master Title: Correlates and interprets data obtained from topographical surveys, well logs, or geophysical prospecting reports, utilizing special symbols to denote geological and geophysical formations or oil field installations. May finish drawings in mediums and according to specifications required for reproduction by blueprinting, photographing, or other duplication methods.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 6 DLU: 77

010.281-018 DRAFTER, GEOPHYSICAL (petrol. & gas)
Draws subsurface contours in rock formations from data obtained by geophysical prospecting party. Plots maps and diagrams from computations based on recordings of seismograph, gravity meter, magnetometer, and other petroleum prospecting instruments and from prospecting and surveying field notes. Performs other duties as described under DRAFTER (profess. & kin.) Master Title. May be designated according to method of prospecting as Drafter, Seismograph (petrol. & gas).
GOE: 05.03.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

010.281-022 WELL-LOGGING OPERATOR, MUD ANALYSIS (petrol. & gas) alternate titles: mud-analysis-well-logging operator

Analyzes mud and drill cuttings that are circulated through oil- or gas-well boreholes during drilling operations, using special testing equipment, to detect presence of oil or gas, and interprets findings to locate productive stratum: Attaches pump-stroke counter, mud-tank level indicator, and other measurement devices to drilling rig equipment, and connects electrical conductor cables to measurement devices and drilling rig monitoring instruments to prepare field laboratory for testing of mud and well cuttings. Detects presence of gas in mud by reading dial of gas-detection meter hooked up to detection devices in mud. Collects mud and drill cutting samples during drilling operations, and inspects samples to determine nature of earth formations encountered and presence of oil or gas in formation, using ultraviolet light, microscope, and other laboratory equipment. Keeps records of dial readings and tests made, and calculates depth of formations found to contain gas or oil. Performs minor repairs to electrical and mechanical equipment.

GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 77

011 METALLURGY AND METALLURGICAL ENGINEERING OCCUPATIONS

This group includes occupations concerned with the extraction of metals from ores, and their processing and conversion into final shape. Also includes the design and development of process methods. Accessory techniques needed include those used in chemistry, geology, ceramics, mineralogy, and in mining, chemical, and mechanical engineering.

011.061-010 FOUNDRY METALLURGIST (foundry) alternate titles: foundry technician

Conducts research to develop and improve methods of sand molding, melting, alloying, and pouring of metals: Makes experimental sand molds, and tests sand for permeability, strength, and chemical composition. Calculates quantity of alloying metals required. Melts alloys and pours metals under controlled conditions to make castings. Performs physical and radiographic tests and evaluates data to develop improved alloys and foundry techniques.

GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

011.061-014 METALLOGRAPHER (profess. & kin.)

Conducts microscopic, macroscopic, and other tests and investigations on samples of metals and alloys for purposes as metallurgical control over products or use in developing new or improved grades and types of metals, alloys, or production methods: Directs laboratory personnel in preparing of samples, such as polishing or etching, and designates area of sample where microscopic or macroscopic examination is to be made. Studies photomicrographs and performs microscopic examinations on samples to determine metal characteristics, such as crystal structure, porosity, and homogeneity. Interprets findings and prepares drawings, charts, and graphs for inclusion in reports for reference or instruction purposes, and writes reports regarding findings, conclusions, and recommendations. Coordinates and participates in performing special tests, such as end-quench hardenability, bend and tensile, and grain size tests.

GOE: 05.01.04 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

011.061-018 METALLURGIST, EXTRACTIVE (profess. & kin.) alternate titles: metallurgist, process

Originates, controls, and develops flotation, smelting, electrolytic, and other processes used in winning metals from their ores, for producing iron and steel, or for refining gold, silver, zinc, copper, and other metals: Studies ore reduction problems to determine most efficient methods of producing metals commercially. Controls temperature adjustments, charge mixtures, and other variables in blast-furnace operations and steel-melting furnaces to obtain pig iron and steel of specified metallurgical characteristics and qualities. Investigates methods of improving metallurgical processes, as in the reduction of alumina by electrolytic methods to produce aluminum, the distillation of molten ore to purify zinc, or selective oxidation methods to extract lead, nickel, mercury, and other nonferrous metals from their ores.

GOE: 05.01.06 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

011.061-022 METALLURGIST, PHYSICAL (profess. & kin.)

Investigates and conducts experiments concerned with physical characteristics, properties, and processing of metals to develop new alloys, applications, and methods of commercially fabricating products from metals: Conducts microscopic, x ray, x-ray diffraction, and spectroscopic studies of metals and alloys, such as steel, cast iron, and nonferrous alloys, to determine their physical characteristics, such as crystal structure, dispersion of alloy particles through basic metal, and presence of impurities, fractures, and other defects in metal samples. Develops melting, hot-working, cold-working, and heat-treating processes to obtain desired characteristics, such as ductility, malleability, elongation ability, durability, and hardness. Tests alloys in tension, compression, impact, bending, or fatigue devices to study physical characteristics for manufacturing purposes or determine compliance with manufacturing specifications and standards. Consults with engineers and officials to develop methods of manufacturing alloys at minimum costs. May specialize in particular area of physical metallurgy, such as development of improved techniques and materials, for use in production of pressed metallic-powder products.

GOE: 02.01.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

011.061-026 WELDING ENGINEER (profess. & kin.)

Develops welding techniques, procedures, and application of welding equipment to problems involving fabrication of metals, utilizing knowledge of production specifications, properties and characteristics of metals and metal and engineering principles: Conducts research and development investig to develop and test new fabrication processes and procedures, improve e or develop new welding equipment, develop new or modify current w methods, techniques, and procedures, discover new patterns of welding nomena, or to correlate and substanitate hypotheses. Prepares technical as result of research and development and preventive maintenance inv tions. Establishes welding procedures to guide production and welding p nel relating to specification restrictions, material processes, pre- and pos ing requirements which involve use of complex alloys, unusual fabri methods, welding of critical joints, and complex postheating requirer Evaluates new developments in welding field for possible application to c welding problems or production processes. Directs and coordinates tec personnel in performing inspections to ensure workers' compliance with lished welding procedures, restrictions, and standards; in testing welds fo formance with national code requirements; or testing welding personnel fo tification. Contacts personnel of other agencies, engineering personnel, c ents to exchange ideas, information, or offer technical advice concerning ing matters. May perform experimental welding to evaluate new equip techniques, and materials.

GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

011.161-010 SUPERVISOR, METALLURGICAL-AND-QUALITY-C TROL-TESTING (profess. & kin.) alternate titles: phy testing supervisor

Directs and coordinates, through subordinate supervisory personnel, acti of workers engaged in testing finished and semifinished metal sample s mens to determine if metallurgical and physical properties meet manufact specifications: Reviews production schedules to ascertain work load and pares schedules and priorities for work. Assigns personnel to specific wor signments and reviews test reports to determine if physical characteristi sample specimens meet metallurgical specifications and quality control s ards. Investigates causes of defective material and advises supervisory perso of production department responsible of processing defects. Determines position of substandard material, according to established precedent or pra or upon approval of superior, such as downgrading, reprocessing, or scrap material. Advises metallurgical personnel on problems involving quality co and testing techniques and methods and on application of metallurgical s fications to metal products.

GOE: 02.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

011.261-010 METALLURGICAL TECHNICIAN (profess. & kin.) a nate titles: metallurgical-laboratory assistant; metallurg tester; physical-laboratory assistant

Examines and tests metal samples to determine their physical proper under direction of METALLOGRAPHER (profess. & kin.). Conducts ro microscopic examinations of metals and alloys to determine their crystal s ture, porosity, homogeneity, and other characteristics. Polishes or etches m specimens and photographs samples, using photomicroscope, or directs pho raphy technical personnel to take, develop, and mount photomicrographs amines metal and alloy samples with x-ray, gamma-ray, and magnetic- equipment to detect internal fractures, impurities, and similar defects in me Tests samples in pressure devices, hot-acid baths, and other apparatus to de mine strength, hardness, elasticity, toughness, or other properties of metal.

GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

011.261-014 WELDING TECHNICIAN (profess. & kin.)

Conducts experiments and tests and evaluates data to assist welding engin ing personnel in development and application of new or improved wel equipment; welding techniques, procedures, and practices; and specifications material heat treating: Assists engineering personnel in testing and evalua welding equipment, metals, and alloys. Evaluates data and conducts exp ments to develop application of new equipment or improved techniques, pro dures, or practices. Recommends adoption of new developments and appl tions to engineering personnel and demonstrates practicability of r ommendations. Inspects welded joints and conducts tests to ensure welds m company standards, national code requirements, and customer job specifi tions. Records inspection and test results and prepares and submits reports welding engineering personnel. Conducts certification tests for qualification personnel with national code requirements.

GOE: 05.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

011.261-018 NONDESTRUCTIVE TESTER (profess. & kin.)

Conducts radiographic, penetrant, ultrasonic, and magnetic particle tests metal parts to determine if parts meet nondestructive specifications: Revie test orders to determine type of test requested, test procedures to follow, part acceptability criteria. Applies agents, such as cleaners, penetrants, and velopers, and couplant (light oil which acts as medium), to parts, or heats pa in oven, to prepare parts for testing. Determines test equipment settings acco ing to type of metal, thickness, distance from test equipment, and related va ables, using standard formulas. Calibrates test equipment, such as magnetic p ticle, x-ray, and ultrasonic contact machines, to standard settings, followi manual instructions. Sets up equipment to perform tests, and conducts tests parts, following procedures established for specified tests performed. Examin surface-treated materials during penetrant and magnetic particle tests to loc and identify cracks or other defects, using black light. Moves transducer pro across part when conducting ultrasonic tests and observes CRT (cathode r

tube) screen to detect and locate discontinuities in metal structure [ULTRASONIC TESTER (any industry) 739.281-014]. Examines film when conducting radiographic tests to locate structural or welding flaws. Marks tested parts to indicate defective areas. Evaluates test results against designated standards, utilizing knowledge of metals and testing experience. Prepares reports outlining findings and conclusions. May perform similar tests on nonmetallic parts or structures.
GOE: 05.07.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 88

011.261-022 LABORATORY ASSISTANT, METALLURGICAL (steel & rel.) alternate titles: metallurgical analyst; metallurgical inspector

Analyzes data obtained from investigation of physical and chemical properties of metals, or processes used in recovering metals from their ores to select method, standards, and procedures of examination and testing and conducts tests: Analyzes operating records and test reports, or by personal observation and investigation, determines conformance to established procedures, methods, and standards. Conducts physical, chemical, and process examinations, using metallurgical equipment and instruments for routine, special, and experimental investigations. Writes report indicating deviations from specifications and recommends corrective measures for approval.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

011.281-014 SPECTROSCOPIST (profess. & kin.) alternate titles: spectrographer; spectrographic analyst

Conducts spectrographic examinations of metal and mineral samples under established procedures, using spectrograph, spectrometer, densitometer, and other measuring instruments. Analyzes densitometer or spectrometer readings to measure density ratio of specific elements in sample. Computes percentage composition of sample by comparing intensity ratio with standard charts. Investigates deviations from standard, performing further examinations by other spectrographic procedures and methods to establish degree of conformance to standard. Records quantitative determination, procedure, and standard applied for each sample examined.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

011.361-010 TESTER (profess. & kin.) alternate titles: physical tester; testing-machine operator

Measures tensile strength, hardness, ductility, or other physical properties of metal specimens, using following prescribed series of operations: Determines tensile strength on tension-testing machines. Measures dimensions of specimen with scales and micrometers and records measurements. Screws or clamps specimen in holders on machine. Clamps extensometer onto specimen and connects wire from extensometer to automatic stress-strain recorder. Turns handwheels or moves levers to apply tension to specimen at specified rate. Notes reading of indicator dial on control panel of machine or observes stress-strain curve (curve obtained by plotting applied tension against resultant elongation) being drawn by recorder to determine yield point and tensile strength of specimen. Removes pieces of broken specimen from machine, fits them together, and measures amount of elongation. Makes simple calculations of values, such as unit tensile strength and percentage elongation, using tables. Records readings and calculations on special forms. Measures hardness of specimens [HARDNESS INSPECTOR (heat treating) 504.387-010]. Measures ductility of sheet metal specimens in sheet metal testing machine. May test specimens for plasticity and compression. May specialize in testing iron or steel sheets for ductility and be designated Sheet Tester (steel & rel.).
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L3 SVP: 5 DLU: 77

012 INDUSTRIAL ENGINEERING OCCUPATIONS

This group includes occupations concerned with the design and installation of integrated systems of personnel, materials, machinery, and equipment. Accessory techniques may include those used in mechanical and various other engineering specialties. Typical specializations are plant layout; production methods and standards; cost control; quality control; time, motion, and incentive studies; and methods, production, and safety engineering.

012.061-010 PRODUCT-SAFETY ENGINEER (profess. & kin.)

Develops and conducts tests to evaluate product safety levels and recommends measures to reduce or eliminate hazards: Establishes procedures for detection and elimination of physical and chemical hazards and avoidance of potential toxic effects and other product hazards. Investigates causes of accidents, injuries, and illnesses resulting from product usage and develops solutions. Evaluates potential health hazards or damage which could result from misuse of products and applies engineering principles and product standards to improve safety. May participate in preparation of product usage and precautionary label instructions.
GOE: 05.01.02 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

012.061-014 SAFETY ENGINEER (profess. & kin.)

Develops and implements safety program to prevent or correct unsafe environmental working conditions, utilizing knowledge of industrial processes, mechanics, chemistry, psychology, and industrial health and safety laws: Examines plans and specifications for new machinery or equipment to determine if all safety precautions have been included. Determines amount of weight that can be safely placed on plant floor. Tours plant to inspect fire and safety equipment, machinery, and facilities to identify and correct potential hazards and ensure compliance with safety regulations. Determines requirements for safety clothing and devices, and designs, builds, and installs, or directs installation of safety devices on machinery. Conducts or coordinates safety and first aid training to educate workers about safety policies, laws, and practices. Investigates industrial accidents to minimize recurrence and prepares accident reports. May conduct air quality tests for presence of harmful gases and vapors.
GOE: 05.01.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 88

012.061-018 STANDARDS ENGINEER (profess. & kin.)

Establishes engineering and technical limitations and applications for items, materials, processes, methods, designs, and engineering practices for use by designers of machines and equipment, such as aircraft, automobiles, and space vehicles: Communicates with management of industrial organization to maintain knowledge of current and proposed projects in order to develop appropriate standards for design and production of new items. Evaluates data in scientific journals, suppliers' catalogs, government standards documents, and other sources of information on materials, processes, and parts to update knowledge of available resources. Prepares specification sheets and standard drawings designating parts and materials acceptable for specific uses, using knowledge of primary engineering discipline and related disciplines. Examines all factors involved to confirm that standards will result in most economic use of material and labor consistent with safety and durability of final product. Reviews standards prepared with other departmental specialists to assure consistency with existing standards and those in other specialized disciplines. Communicates with user personnel to confirm knowledge of standards and cooperation of various project groups. Follows established procedures for retention of data developed to assure optimum storage and retrieval by manual or automated methods.
GOE: 05.01.06 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

012.067-010 METROLOGIST (profess. & kin.)

Develops and evaluates calibration systems that measure characteristics of objects, substances, or phenomena, such as length, mass, time, temperature, electric current, luminous intensity, and derived units of physical or chemical measure: Identifies magnitude of error sources contributing to uncertainty of results to determine reliability of measurement process in quantitative terms. Redesigns or adjusts measurement capability to minimize errors. Develops calibration methods and techniques based on principles of measurement science, technical analysis of measurement problems, and accuracy and precision requirements. Directs engineering, quality, and laboratory personnel in design, manufacture, evaluation, and calibration of measurement standards, instruments, and test systems to ensure selection of approved instrumentation. Advises others on methods of resolving measurement problems and exchanges information with other metrology personnel through participation in government and industrial standardization committees and professional societies.
GOE: 05.01.04 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

012.167-010 CONFIGURATION MANAGEMENT ANALYST (profess. & kin.)

Analyzes proposed changes of product design to determine effect on overall system, and coordinates recording of modifications for management control: Confers with manufacturer or customer representatives to establish change-reporting procedure, and prepares directives for change authorization and documentation by company and subcontractor personnel. Analyzes proposed part-design changes and exhibits to prepare report of effect on overall product for management action, using knowledge of engineering, manufacturing, and procurement activities. Confers with department managers to obtain additional information or to interpret policies and procedures for reporting changes in product design. Audits subcontractor's inspection or technical documents preparation procedure to verify compliance with contract requirements. Coordinates activities of personnel preparing manual or automated records of part-design change documents and *first-article configuration inspection*.
GOE: 05.01.06 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

012.167-014 MANAGER, QUALITY CONTROL (profess. & kin.)

Plans, coordinates, and directs quality control program designed to ensure continuous production of products consistent with established standards: Develops and analyzes statistical data and product specifications to determine present standards and establish proposed quality and reliability expectancy of finished product. Formulates and maintains quality control objectives and coordinates objectives with production procedures in cooperation with other plant managers to maximize product reliability and minimize costs. Directs, through intermediate personnel, workers engaged in inspection and testing activities to ensure continuous control over materials, facilities, and products. Plans, promotes, and organizes training activities related to product quality and reliability. May investigate and adjust customer complaints regarding quality.
GOE: 05.02.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 88

012.167-018 FACTORY LAY-OUT ENGINEER (profess. & kin.) alternate titles: planning engineer

Plans layout of complete departments of industrial plant or commercial establishment to provide maximum possible operating efficiency: Measures and studies available floor space and draws plan of floor space to scale, using drafting tools. Studies sequence of operations to be performed and flow of materials. Studies and measures machines, conveyors, benches, furnaces, and other equipment. Coordinates all available knowledge and information into finished scale drawing, showing most efficient location for each piece of equipment and necessary working area around each. May use computer-assisted design/drafting equipment.

GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 88

012.167-022 FIRE-PREVENTION RESEARCH ENGINEER (profess. & kin.) alternate titles: loss-prevention research engineer

Conducts research to determine cause and methods of preventing fires and prepares educational materials concerning fire prevention for insurance companies, performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.

GOE: 05.01.01 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

012.167-026 FIRE-PROTECTION ENGINEER (profess. & kin.) alternate titles: fire-loss-prevention engineer

Advises and assists private and public organizations and military services for purposes of safeguarding life and property against fire, explosion, and related hazards: Makes studies of industrial, mercantile, and public buildings, homes, and other property before and after construction, considering factors, such as fire resistance of construction, usage or contents of buildings, water supplies and water delivery, and egress facilities. Designs or recommends materials or equipment, such as structural components protection, fire-detection equipment, alarm systems, fire extinguishing devices and systems, and advises on location, handling, installation, and maintenance. Recommends materials, equipment, or methods for alleviation of conditions conducive to fire. Devises fire protection programs, and organizes and trains personnel to carry out such programs. May evaluate fire departments and adequacy of laws, ordinances, and regulations affecting fire prevention or firesafety. Conducts research and tests on fire retardants and firesafety of materials and devices and to determine fire causes and methods of fire prevention. May determine fire causes and methods of fire prevention. May teach courses on fire prevention and protection at accredited educational institutions. May advise and plan for prevention of destruction by fire, wind, water, or other causes of damage.

GOE: 05.01.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

012.167-030 INDUSTRIAL ENGINEER (profess. & kin.)

Plans utilization of facilities, equipment, materials, and personnel to improve efficiency of operations: Studies functional statements, organization charts, and project information to determine functions and responsibilities of workers and work units and to identify areas of duplication. Establishes work measurement programs and analyzes work samples to develop standards for labor utilization. Analyzes work force utilization, facility layout, and operational data, such as production costs, process flow charts, and production schedules, to determine efficient utilization of workers and equipment. Recommends methods for improving worker efficiency and reducing waste of materials and utilities, such as restructuring job duties, reorganizing work flow, relocating work stations and equipment, and purchase of equipment. Confers with management and engineering staff to implement plans and recommendations. May develop management systems for cost analysis, financial planning, wage and salary administration, and job evaluation.

GOE: 05.01.06 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 90

012.167-034 INDUSTRIAL-HEALTH ENGINEER (profess. & kin.) alternate titles: industrial hygiene engineer

Plans and coordinates private or government industrial health program requiring application of engineering principles and technology to analyze and control conditions contributing to occupational hazards and diseases: Conducts plant or area surveys to determine safe limits of exposure to materials or conditions, such as temperatures, noise, dusts, fumes, vapors, mists, gases, solvents, and radiation which are known or suspected of being real or potential detriments to health, and implements or recommends control measures. Directs workers engaged in field and laboratory verification of compliance with health regulations. Provides technical guidance to management, labor organizations, government agencies, and civic groups regarding health-related problems, such as stream and air pollution and correct use of protective clothing or accessories.

GOE: 05.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

012.167-038 LIAISON ENGINEER (aircraft mfg.)

Coordinates activities to evaluate and resolve engineering-related production problems encountered in assigned area of aircraft manufacturing facility: Reviews production schedules, engineering specifications, orders, and related information to maintain current knowledge of manufacturing methods, procedures, and activities in assigned area. Confers with quality control, material, manufacturing, and other department personnel to provide technical support. Interprets engineering drawings and facilitates correction of errors on drawings and documents identified during manufacturing operations. Investigates reports of defective, damaged, or malfunctioning parts, assemblies, equipment, or systems to determine nature and scope of problem. Examines, measures, inspects, or tests defective part for conformance to engineering design drawings or blueprint specifications, using precision measuring and testing instruments, devices, and equipment. Consults with project engineers to obtain specialized information. Evaluates findings to formulate corrective action plan and coordinates implementation of plan. Maintains records or oversees recording of information by others to ensure engineering drawings and documents are current and that engineering-related production problems and resolutions are documented. Serves as member of material review board to determine disposition of defective or damaged parts. May specialize in investigating and resolving tooling problems and be designated Tool Liaison (aircraft mfg.).

GOE: 05.01.06 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 88

012.167-042 MANUFACTURING ENGINEER (profess. & kin.)

Plans, directs, and coordinates manufacturing processes in industrial plant: Develops, evaluates, and improves manufacturing methods, utilizing knowledge of product design, materials and parts, fabrication processes, tooling and pr
duction equipment capabilities, assembly methods, and quality control stan
ards. Analyzes and plans work force utilization, space requirements, a
workflow, and designs layout of equipment and workspace for maximum ef
ciency [INDUSTRIAL ENGINEER (profess. & kin.) 012.167-030]. Confe
with planning and design staff concerning product design and tooling to ensu
efficient production methods. Confers with vendors to determine product spec
fications and arrange for purchase of equipment, materials, or parts, and eval
ates products according to specifications and quality standards. Estimates pr
duction times, staffing requirements, and related costs to provide informatio
for management decisions. Confers with management, engineering, and oth
staff regarding manufacturing capabilities, production schedules, and other co
siderations to facilitate production processes. Applies statistical methods to es
mate future manufacturing requirements and potential.

GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

012.167-046 PRODUCTION ENGINEER (profess. & kin.)

Plans and coordinates production procedures in industrial plant: Directs pr
duction departments. Regulates and coordinates functions of office and sho
Introduces efficient production line methods. Initiates and directs procedures
increase company output.

GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 87

**012.167-050 PRODUCTION PLANNER (profess. & kin.) alternate title
planner, chief; planning supervisor; process planner; pr
duction-planning supervisor; production scheduler; sche
uler; tool-and-production planner**

Plans and prepares production schedules for manufacture of industrial
commercial products: Draws up master schedule to establish sequence and le
time of each operation to meet shipping dates according to sales forecasts
customer orders. Analyzes production specifications and plant capacity data a
performs mathematical calculations to determine manufacturing processes, too
and human resource requirements. Plans and schedules workflow for each d
partment and operation according to previously established manufacturing s
quences and lead times. Plans sequence of fabrication, assembly, installatio
and other manufacturing operations for guidance of production workers. Co
fers with department supervisors to determine status of assigned projects. Exp
dites operations that delay schedules and alters schedules to meet unforese
conditions. Prepares production reports. May prepare lists of required materia
tools, and equipment. May prepare purchase orders to obtain materials, too
and equipment.

GOE: 05.01.06 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 86

012.167-054 QUALITY CONTROL ENGINEER (profess. & kin.)

Plans and directs activities concerned with development, application, a
maintenance of quality standards for industrial processes, materials, and pro
ucts: Develops and initiates standards and methods for inspection, testing, a
evaluation, utilizing knowledge in engineering fields such as chemical, ele
trical, or mechanical. Devises sampling procedures and designs and develo
forms and instructions for recording, evaluating, and reporting quality and re
ability data. Establishes program to evaluate precision and accuracy of produ
tion equipment and testing, measurement, and analytical equipment and faci
ties. Develops and implements methods and procedures for disposition of d
crepant material and devises methods to assess cost and responsibility. Direc
workers engaged in measuring and testing product and tabulating data concer
ing materials, product, or process quality and reliability. Compiles and wri
training material and conducts training sessions on quality control activitie
May specialize in areas of quality control engineering, such as design, incomi
material, process control, product evaluation, product reliability, inventory co
trol, metrology, automated testing, software, research and development, and a
ministrative application. May manage quality control program [MANAGE
QUALITY CONTROL (profess. & kin.) 012.167-014].

GOE: 05.01.04 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 89

012.167-058 SAFETY MANAGER (profess. & kin.)

Plans, implements, and coordinates program to reduce or eliminate occup
tional injuries, illnesses, deaths, and financial losses: Identifies and apprais
conditions which could produce accidents and financial losses and evaluates p
tential extent of injuries resulting from accidents. Conducts or directs resear
studies to identify hazards and evaluate loss producing potential of given sy
tem, operation or process. Develops accident-prevention and loss-control sy
tems and programs for incorporation into operational policies of organizatio
Coordinates safety activities of unit managers to ensure implementation of saf
ty activities throughout organization. Compiles, analyzes, and interprets stati
tical data related to exposure factors concerning occupational illnesses and acc
dents and prepares reports for information of personnel concerned. Maintai
liaison with outside organizations, such as fire departments, mutual aid soc
eties, and rescue teams to assure information exchange and mutual assistanc
Devises methods to evaluate safety program and conducts or directs evalu
tions. Evaluates technical and scientific publications concerned with safety ma
agement and participates in activities of related professional organizations
update knowledge of safety program developments. May store and retrieve st
tistical data, using computer.

GOE: 05.01.02 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 88

**012.167-062 SUPERVISOR, VENDOR QUALITY (any industry) alte
nate titles: chief, vendor quality**

Directs and coordinates quality inspection of parts, components, and mat
rials produced by subcontractors and vendors, and surveillance of su

contractors' manufacturing processes: Directs sampling inspection, and testing of received parts, components, and materials to determine conformance to standards. Conducts periodic and special surveys of subcontractors' facilities and manufacturing processes to determine adequacy and capability of quality control and ability to comply with complete quality specifications. Reviews quality problems with engineering personnel and directs action required to correct defects. Prepares periodic and special reports concerning departmental activities, problems, subcontractor's quality system, schedules, and rejected items. Aids in organizational planning by participating in departmental conferences.
GOE: 05.03.06 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

012.167-070 TIME-STUDY ENGINEER (profess. & kin.) alternate titles: efficiency expert; manager, production; methods-and-procedures analyst; production engineer; production expert; time-study analyst; work-measurement engineer

Develops work measurement procedures and directs time-and-motion studies to promote efficient and economical utilization of personnel and facilities: Directs or conducts observation and analysis of personnel and work procedures to determine time-and-motion requirements of job duties. Analyzes work study data and equipment specifications to establish time and production standards. Applies mathematical analysis to determine validity and reliability of sampling and work study statistics. Applies principles of industrial engineering and applied psychology to evaluate work methods proposals and to develop recommendations to management affecting work methods, wage rates, and budget decisions. Trains INDUSTRIAL ENGINEERING TECHNICIAN (profess. & kin.) in time-and-motion study principles and techniques.
GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

012.167-074 TOOL PLANNER (any industry) alternate titles: processor

Analyzes blueprints or prototype parts to determine tools, fixtures, and equipment needed for manufacture and plans sequence of operations for fabrication and assembly of products, such as aircraft assemblies, automobile parts, cutting tools, or ball bearings: Studies engineering blueprints, drawings, models, and other specifications to obtain data on proposed part. Applies knowledge of functions and processes of various departments and capacities of machines and equipment to determine tool requirements and establish sequence of operations to fabricate and assemble parts. Lists operations to be performed on routing card or paper, indicates machines, cutting tools, fixtures, and other equipment to be used, and estimates times needed to perform each operation. May prepare reports for PRODUCTION PLANNER (profess. & kin.) in scheduling work for entire plant. May plan tool and operation sequences for only one department. May specify type of material to be used in construction of tools.
GOE: 05.01.06 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

012.167-078 DOCUMENTATION ENGINEER (profess. & kin.)

Plans, directs, and coordinates preparation of project documentation, such as engineering drawings, production specifications and schedules, and contract modifications, to ensure customer contract requirements are met: Reviews contract to determine documentation required for each phase of project, applying knowledge of engineering and manufacturing processes. Schedules due dates for drawings, specifications, software, technical manuals, and other documents. Monitors status of project to ensure documentation is submitted according to schedule. Reviews and verifies project documents for completeness, format, and compliance with contract requirements. Submits project documentation to management for approval, and transmits approved documents to customer. Confers with engineers, managers, customers, and others to discuss project, prepare documents, or modify contract schedules.
GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

012.167-082 MATERIAL SCHEDULER (aircraft mfg.) alternate titles: commodities requirements analyst; material planning and acquisition analyst; production control scheduler

Develops and analyzes lists of raw materials, purchased parts, equipment, and other items required to manufacture aircraft and aerospace products: Reviews and evaluates engineering drawings and blueprints to estimate quantity and type of materials, parts, or other items required. Converts requirements to orders of conventional sizes and quantities, considering factors such as existing inventories, unavoidable waste, and kind of material to be used. Reviews material lists for conformance to company standard practices in regard to parts and materials used. Schedules deliveries based on production forecasts, material substitutions, storage and handling facilities, and maintenance requirements. Prepares or authorizes preparation of purchase requisitions. Estimates need to reorder supplies due to rejections and engineering changes during manufacturing cycle. Confers with purchasing, engineering, planning, and other personnel to exchange information regarding inventories, schedules, and related issues.
GOE: 05.03.03 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 87

012.187-014 SHOE-LAY-OUT PLANNER (boot & shoe) alternate titles: shoe planner

Plans detailed instructions of operations in manufacture of newly designed shoes: Compiles manufacturing data from designer specifications, such as last to be used, size runs, ornamentation, saddle height, strap width, and color. Computes sizes of parts, such as inserts, linings, quarters, or vamps according to shoe size specifications or following *standard size system*. Lists specifications, such as materials, stitching, and findings for each shoe size. May cut paper patterns of shoe design. May cut traced design into pattern of shoe parts.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 77

012.261-010 AIR ANALYST (profess. & kin.) alternate titles: air tester

Analyzes samples of air in industrial establishments or other work areas to determine amount of suspended foreign particles and effectiveness of control methods, using dust collectors: Starts dust collector apparatus that draws air through machine and precipitates dust on tubes, plates, electrodes, or in flasks. Weighs or otherwise determines amount of collected particles, such as lead, rock, or coal dust. Compares weight or count of particles with volume of air passed through machine, and computes percentage of concentration per cubic foot of air tested, using mathematical and chemical formulas. Prepares summary of findings for submission to appropriate department. May recommend remedial measures.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L4 SVP: 5 DLU: 77

012.261-014 QUALITY CONTROL TECHNICIAN (profess. & kin.)

Tests and inspects products at various stages of production process and compiles and evaluates statistical data to determine and maintain quality and reliability of products: Interprets engineering drawings, schematic diagrams, or formulas and confers with management or engineering staff to determine quality and reliability standards. Selects products for tests at specified stages in production process, and tests products for variety of qualities, such as dimensions, performance, and mechanical, electrical, or chemical characteristics. Records test data, applying statistical quality control procedures. Evaluates data and writes reports to validate or indicate deviations from existing standards. Recommends modifications of existing quality or production standards to achieve optimum quality within limits of equipment capability. May set up and perform destructive and nondestructive tests on materials, parts, or products to measure performance, life, or material characteristics. May prepare graphs or charts of data or enter data into computer for analysis. May specialize in particular area of quality control engineering, such as design, incoming material, process control, product evaluation, inventory control, product reliability, research and development, and administrative application.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 89

012.267-010 INDUSTRIAL ENGINEERING TECHNICIAN (profess. & kin.)

Studies and records time, motion, methods, and speed involved in performance of maintenance, production, clerical, and other worker operations to establish standard production rate and to improve efficiency: Prepares charts, graphs, and diagrams to illustrate workflow, routing, floor layouts, material handling, and machine utilization. Observes workers operating equipment or performing tasks to determine time involved and fatigue rate, using stop watch, motion-picture camera, electrical recorder, and similar equipment. Recommends revision of methods of operation or material handling, alterations in equipment layout, or other changes to increase production or improve standards. Aids in planning work assignments in accordance with worker performance, machine capacity, production schedules, and anticipated delays. May be designated according to type of studies analyzed as Methods-Study Analyst (profess. & kin.); Motion-Study Analyst (profess. & kin.); Pace Analyst (profess. & kin.); Time-Study Analyst (profess. & kin.).
GOE: 05.03.06 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 81

012.281-010 SMOKE TESTER (smelt. & refin.)

Tests emmissions from smokestack to determine if electrostatic precipitator and flue recovery systems are operating within prescribed standards: Measures force of gas flow by observing manometer attached to Pitot tube placed at various points in stack. Obtains solids contained in gas by drawing metered quantity of flue exhaust through filter bag. Computes total amount of gases and solids lost, using specified formula.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L3 SVP: 5 DLU: 77

013 AGRICULTURAL ENGINEERING OCCUPATIONS

This group includes occupations concerned with the application of engineering principles and techniques for the solution of agricultural problems. Also includes the design and development of agricultural machinery and structures. Accessory techniques needed may be those used in civil, mechanical, power, and electrical engineering; mineralogy; chemistry; and biology. Typical specializations are soil and water conservation; farm electrification; farm fire protection; pest control; and farm power and machinery, farm structures, and rural roads engineering.

013.061-010 AGRICULTURAL ENGINEER (profess. & kin.)

Applies engineering technology and knowledge of biological sciences to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing of agricultural products: Develops criteria for design, manufacture, or construction of equipment, structures, and facilities. Designs and uses sensing, measuring, and recording devices and instrumentation to study such problems as effects of temperature, humidity, and light, on plants or animals, or relative effectiveness of different methods of applying insecticides. Designs and directs manufacture of equipment for land tillage and fertilization, plant and animal disease and insect control, and for harvesting or moving commodities. Designs and supervises erection of structures for crop storage, animal shelter, and human dwelling, including light, heat, air-conditioning, water supply, and waste disposal. Plans and directs construction of rural electric-power distribution systems, and irrigation, drainage, and flood-

control systems for soil and water conservation. Designs and supervises installation of equipment and instruments used to evaluate and process farm products, and to automate agricultural operations. May conduct radio and television educational programs to provide assistance to farmers, local groups, and related farm cooperatives. Workers are usually designated according to area of specialty or product.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

013.061-014 AGRICULTURAL-RESEARCH ENGINEER (profess. & kin.)
Conducts research to develop agricultural machinery and equipment, performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

013.061-018 DESIGN-ENGINEER, AGRICULTURAL EQUIPMENT (profess. & kin.)
Designs agricultural machinery and equipment, performing duties as described under DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

013.061-022 TEST ENGINEER, AGRICULTURAL EQUIPMENT (profess. & kin.)
Conducts tests on agricultural machinery and equipment, performing duties as described under TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

013.151-010 SALES ENGINEER, AGRICULTURAL EQUIPMENT (profess. & kin.)
Sells agricultural machinery and equipment and provides technical services to client, performing duties as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

013.161-010 AGRICULTURAL-ENGINEERING TECHNICIAN (profess. & kin.)
Prepares original layout and completes detailed drawings of agricultural machinery and equipment, such as farm machinery, irrigation, power, and electrification systems, soil and water conservation equipment and agricultural harvesting and processing equipment: Applies biological and engineering knowledge, design principles, and theories to ensure compliance with company policy, and an end product which will perform as required. Maintains working knowledge of functions, operations, and maintenance of various types of equipment and materials used in the industry to assure appropriate utilization.
GOE: 05.01.07 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

014 MARINE ENGINEERING OCCUPATIONS

This group includes occupations concerned with the design, development, and installation of ship machinery and related equipment, including propulsion machines and power supply systems. Accessory techniques needed are those used in mechanical and electrical engineering. Typical specializations are construction and repair, design and layout, consulting, research, and the administration of engineering enterprises and government regulatory activities.

014.061-010 DESIGN ENGINEER, MARINE EQUIPMENT (profess. & kin.)
Designs marine machinery and equipment performing duties as described under DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

014.061-014 MARINE ENGINEER (profess. & kin.)
Designs and oversees installation and repair of marine powerplants, propulsion systems, heating and ventilating systems, and other mechanical and electrical equipment in ships, docks, and marine facilities: Studies drawings and specifications and performs complex calculations to conceive equipment and systems designed to meet requirements of marine craft or facility. Oversees and evaluates operation of equipment during acceptance testing and shakedown cruises. May specialize in design of equipment, such as boilers, steam-driven reciprocating engines, heat exchangers, fire-control and communication systems, electric power systems, or piping and related fittings and valves.
GOE: 05.01.03 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 77

014.061-018 RESEARCH ENGINEER, MARINE EQUIPMENT (profess. & kin.)
Conducts research on marine machinery and equipment, performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

014.061-022 TEST ENGINEER, MARINE EQUIPMENT (profess. & kin.)
Conducts tests on marine machinery and equipment, performing duties as described under TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

014.151-010 SALES ENGINEER, MARINE EQUIPMENT (profess. & kin.)
Sells marine machinery and equipment and provides technical services to client, performing duties as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

014.167-010 MARINE SURVEYOR (profess. & kin.) alternate titles: ship surveyor
Surveys marine vessels and watercraft, such as ships, boats, tankers, and dredges, to ascertain condition of hull, machinery, equipment, and equipage, and to determine repairs required for vessel to meet requirements for insuring: Examines underwater section of hull while ship is drydocked to ascertain conditions that indicate repairs are required. Takes readings on tailshaft and tailshaft bearings. Inspects condition of propellers, rudders, and sea valves. Inspects above waterline section of ship, such as hatchways, freeing ports, ventilators, bulkheads, fittings, and attachments, for compliance with operating standards and compliance with standards for protection of crew. Observes operating tests on machinery and equipment and inspects opened up machinery for interior condition. Observes testing of cargo gear for compliance with testing standards and issues or endorses certificate for gear tested. Prepares reports on types of surveys conducted, recommended actions and repairs, or conditions remedied. Submits report to client.
GOE: 05.03.06 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

014.167-014 PORT ENGINEER (ship-boat mfg.; water trans.)
Coordinates repair and maintenance functions furnished operating fleet to minimize loss of revenue and cost of repairs: Reviews repair request and compares request with previous work accomplished on ship concerned and similar vessels to determine that expenditures are economically sound. Prepares recommendations for work, and initiates procurement of materials. Inspects machinery, equipment, or spaces outlined in work request, draws up job specifications, and obtains bids from contractors or shipyards to perform repairs. Maintains contact with contractors to ensure completion of work at minimum cost. Investigates machinery casualties to determine cause, and advises ship's officers in methods of operation to prevent recurrence of casualty or maloperation. Maintains records of engineering costs for each vessel, such as repairs, supplies, and personnel. Cooperates with regulatory bodies to ensure that requirements for alterations, repair, or modifications are kept at minimum cost consistent with safety. May represent ferry system interests in ferry and terminal construction and maintenance activities, and in union contract negotiations.
GOE: 05.01.06 STRENGTH: S GED: R5 M4 L3 SVP: 8 DLU: 77

014.281-010 DRAFTER, MARINE (profess. & kin.)
Draws structural and mechanical features of ships, docks, and other marine structures and equipment, performing duties of DRAFTER (profess. & kin.) Master Title. Works from general design drawings and notes made by ARCHITECT, MARINE (profess. & kin.) or MARINE ENGINEER (profess. & kin.).
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

015 NUCLEAR ENGINEERING OCCUPATIONS

This group includes occupations concerned with the reasearch, development, and application of scientific knowledge of nuclear reactions and radiations, and principles of engineering applied to the production of heat and power, transmutation of elements, and production of neutrons, gamma radiation, and radioisotopes.

015.021-010 HEALTH PHYSICIST (profess. & kin.)
Devises and directs research, training, and monitoring programs to protect plant and laboratory personnel from radiation hazards: Conducts research to develop inspection standards, radiation exposure limits for personnel, safe work methods, and decontamination procedures, and tests surrounding areas to ensure that radiation is not in excess of permissible standards. Develops criteria for design and modification of health physics equipment, such as detectors and counters, to improve radiation protection. Assists in developing standards of permissible concentrations of radioisotopes in liquids and gases. Directs testing and monitoring of equipment and recording of personnel and plant area radiation exposure data. Requests bioassay samples from individuals believed to be exposed. Consults with scientific personnel regarding new experiments to determine that equipment or plant design conforms to health physics standards for protection of personnel. Conducts research pertaining to potential environmental impact of proposed atomic energy related industrial development to determine qualifications for licensing. Requisitions and maintains inventory of instruments. Instructs personnel in principles and regulations related to radiation hazards. Assigns film badges and dosimeters to personnel, and recommends changes in assignment for health reasons. Advises public authorities on methods of dealing with radiation hazards, and procedures to be followed in radiation incidents, and assists in civil defense planning. May specialize in research concerning decontamination of radioactive equipment and work areas in nuclear plants, laboratories, and other facilities and be designated Nuclear-Decontamination Research Specialist (profess. & kin.).
GOE: 05.01.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 81

015.061-010 DESIGN ENGINEER, NUCLEAR EQUIPMENT (profess. & kin.)
Designs nuclear machinery and equipment, performing duties as described under DESIGN ENGINEER, PRODUCTS (profess. & kin.) Master Title.
GOE: 05.01.07 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

015.061-014 NUCLEAR ENGINEER (profess. & kin.)
Conducts research into problems of nuclear energy systems; designs and develops nuclear equipment; and monitors testing, operation, and maintenance of

nuclear reactors: Plans and conducts nuclear research to discover facts or to test, prove, or modify known nuclear theories concerning release, control, and utilization of nuclear energy. Evaluates findings to develop new concepts of thermonuclear analysis and new uses of radioactive processes. Plans, designs, and develops nuclear equipment such as reactor cores, radiation shielding, and associated instrumentation and control mechanisms. Studies nuclear fuel cycle to define most economical uses of nuclear material and safest means of waste products disposal. Monitors nuclear tests and examines operations of facilities which process or utilize radioactive or fissionable material to ensure efficient functioning and conformance with safety specifications, regulations, and laws. Prepares technical reports, utilizing knowledge obtained during research and development activities and inspectional functions. May direct operating and maintenance activities of operational nuclear facility.
GOE: 05.01.03 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 77

015.061-018 RESEARCH ENGINEER, NUCLEAR EQUIPMENT (profess. & kin.)

Conducts research on nuclear equipment and machinery, performing duties as described under RESEARCH ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

015.061-022 TEST ENGINEER, NUCLEAR EQUIPMENT (profess. & kin.)

Conducts tests on nuclear machinery and equipment, performing duties as described under TEST ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

015.061-026 NUCLEAR-FUELS RECLAMATION ENGINEER (profess. & kin.)

Plans, designs, and oversees construction and operation of nuclear fuels reprocessing systems: Performs research and experiments to determine acceptable methods of reclaiming various types of nuclear fuels. Designs nuclear fuel reclamation systems and equipment for pilot plants. Communicates with vendors and contractors, and computes cost estimates of reclamation systems. Writes project proposals and submits them to company review board. Studies safety procedures, guidelines, and controls, and confers with safety officials to ensure that safety limits are not violated in design, construction, or operation of systems and equipment. Oversees nuclear fuels reprocessing system construction and operation, conferring with construction supervisory and operating personnel. Tests system equipment and approves equipment for operation. Monitors operations to detect potential or inherent problems. Initiates corrective actions and orders plant shutdown in emergency situations. Identifies operational and processing problems and recommends solutions. Maintains log of plant operations, and prepares reports for review by plant officials.
GOE: 05.01.03 STRENGTH: L GED: R6 M5 L5 SVP: 7 DLU: 86

015.061-030 NUCLEAR-FUELS RESEARCH ENGINEER (profess. & kin.)

Studies behavior of various fuels and fuel configurations in differentiated reactor environments to determine safest and most efficient usage of nuclear fuels, applying theoretical and experiential knowledge of reactor physics and thermal and metallurgical characteristics of nuclear fuels and fuel cell claddings: Analyzes available data and consults with other scientists to determine parameters of experimentation and suitability of analytical models. Designs fuels behavior tests and coordinates activities of experimental research team in performance and analysis of test operations. Monitors test reactor indicators of factors such as neutron power level, coolant level, and vital pressure, temperature and humidity readings, and changes or modifies procedures to meet test goals. Synthesizes analyses of test results and prepares technical reports to disseminate findings and recommendations. Formulates equations that describe phenomena occurring during fissioning of nuclear fuels and develops analytical models for nuclear fuels research.
GOE: 05.01.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 86

015.067-010 NUCLEAR-CRITICALITY SAFETY ENGINEER (profess. & kin.)

Conducts research and analyzes and evaluates proposed and existing methods of transportation, handling, and storage of nuclear fuel to preclude accidental nuclear reaction at nuclear facilities: Reviews and evaluates fuel transfer and storage plans received from nuclear plants. Studies reports of nuclear fuel characteristics to determine potential or inherent problems. Reads blueprints of proposed storage facilities and visits storage sites to determine adequacy of storage plans. Forecasts nuclear fuel criticality (point at which nuclear chain reaction becomes self-sustaining), given various factors which may exist in fuel handling and storage, using knowledge of nuclear physics, calculator, and computer terminal. Determines potential hazards and accident conditions which may exist in fuel handling and storage and recommends preventive measures. Summarizes findings and writes reports. Confers with project officials to resolve situations where hazard is beyond acceptable levels. Prepares proposal reports for handling and storage of fuels to be submitted to government review board. Studies existing procedures and recommends changes or additions to guidelines and controls to ensure prevention of self-sustaining nuclear chain reaction.
GOE: 05.01.02 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 86

015.137-010 RADIATION-PROTECTION ENGINEER (profess. & kin.)

Supervises and coordinates activities of workers engaged in monitoring radiation levels and condition of equipment used to generate nuclear energy to ensure safe operation of plant facilities: Evaluates water chemical analysis data in primary and supportive plant systems to determine compliance with radiation content and corrosion control regulations. Investigates problems, such as radioactive leaks in reactors and auxiliary systems, or excessive radiation or corrosion of equipment, applying knowledge of radiation protection techniques and principles of chemistry and engineering to correct conditions. Confers with departmental supervisors, manufacturing representatives, and regulatory agency staff to discuss problems, to develop tests to detect radioactive leaks, and to design plans to monitor equipment and safety programs. Directs workers in testing and analyzing water samples and monitoring processing system. Prepares reports, such as environmental monitoring operation report, radioactive waste releases, and shipping reports, for review by administrative personnel and submission to regulatory agency. May prepare employee performance reviews and related reports.
GOE: 05.01.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

015.151-010 SALES ENGINEER, NUCLEAR EQUIPMENT (profess. & kin.)

Sells nuclear machinery and equipment and provides technical services to client, performing duties as described under SALES ENGINEER (profess. & kin.) Master Title.
GOE: 05.01.05 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

015.167-010 NUCLEAR-PLANT TECHNICAL ADVISOR (utilities)

Monitors plant safety status, advises operations staff, and prepares technical reports for operation of thermal-nuclear reactor at electric-power generating station: Observes control-room instrumentation systems and confers with operating personnel to ensure safe operation of plant. Walks throughout plant and observes machinery, equipment, and operating procedures to identify potential hazards. Examines locations of accidents and transients (sudden changes of voltage or load) and obtains data to formulate preventive measures. Implements changes in systems, procedures, structure, or equipment to improve safety. Compares critical parameters with plant transient predictions and accident analysis and determines whether response of plant safety systems is sufficient. Formulates corrective actions, calculates critical parameters from raw data, and computes rate of control rod withdrawal during reactor startup. Confers with operating personnel to provide technical assistance and to discuss maintenance activities, abnormal conditions, and safe operation of plant. Prepares reports to inform management officials of any proposed changes or irregularities in plant operation or systems.
GOE: 05.01.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 86

015.167-014 NUCLEAR-TEST-REACTOR PROGRAM COORDINATOR (profess. & kin.)

Evaluates, coordinates, and oversees testing of nuclear reactor equipment: Analyzes test proposal to ensure that test is valid and feasible. Identifies and resolves problems, such as incompatibilities between proposal and nuclear test-reactor system. Coordinates technical and financial agreements involving feasibility, scope, purpose, and cost of project in nuclear test facility. Assists engineering personnel in interpretation of test language, mathematical formulas, and computer codes used in test. Writes operational instructions. Inspects general condition of nuclear test-reactor vessel and related systems. Verifies setup of nuclear test-reactor for compliance with specifications. Observes control room instrumentation to ensure that performance factors such as neutron power level, chemical composition of coolant, and reactor temperatures and pressures are carried out as prescribed. Evaluates and resolves operational problems. Coordinates activities directed toward removal of test specimens from reactors and subsequent chemical, metallurgical, or mechanical analysis. Compiles report of test results.
GOE: 05.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

015.261-010 CHEMICAL-RADIATION TECHNICIAN (government ser.)

Tests materials and monitors operations of nuclear-powered electric generating plant, using specialized laboratory equipment and chemical and radiation detection instruments: Collects samples of water, gases, and solids at specified intervals during production process, using automatic sampling equipment. Analyzes materials, according to specified procedures, to determine if chemical components and radiation levels are within established limits. Records test results and prepares reports for review by supervisor. Assists workers to set up equipment and monitors equipment that automatically detects deviations from standard operations. Notifies personnel to adjust processing equipment, quantity of additives, and rate of discharge of waste materials, when test results and monitoring of equipment indicate that radiation levels, chemical balance, and discharge of radionuclide materials are in excess of standards. Carries out decontamination procedures to ensure safety of workers and continued operation of processing equipment in plant. Calibrates and maintains chemical instrumentation sensing elements and sampling system equipment, using handtools. Assists workers in diagnosis and correction of problems in instruments and processing equipment. Advises plant personnel of methods of protection from excessive exposure to radiation.
GOE: 11.10.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 86

015.362-010 ACCELERATOR OPERATOR (profess. & kin.)

Controls operation of particle accelerator used in research experiments involving properties of subatomic particles: Reviews experiment schedule to ascertain particle beam parameters specified by experimenter (scientist), such as energy, intensity, and repetition rate. Communicates with accelerator maintenance personnel to ensure readiness of support systems, such as vacuum, water

cooling, and radiofrequency power source. Sets control panel switches, according to standard procedures, to route electric power from source and direct particle beam through injector unit. Turns panel controls and watches meters and panel lights to adjust beam steering units and direct beam to accelerator. Pushes console buttons in prescribed sequence to control beam path in accelerator. Adjusts controls to increase beam pulse rate, energy, and intensity to specified levels. Notifies experimenter in target control room when beam parameters meet specifications. Pushes control levers to steer beam to experimenter's target, as directed. Monitors readings at console during experiment to ensure accelerator systems meet specifications and notifies experimenter of condition. Alters beam parameters during experiment as directed. Ensures that maintenance workers vacate hazardous locations before operations. Records data in log relative to beam specifications, equipment settings used, and beam conditions obtained for future reference. Participates in maintenance and modification of systems as member of team. May be designated according to type of accelerator operated.
GOE: 02.04.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

015.362-014 GAMMA-FACILITIES OPERATOR (profess. & kin.) alternate titles: pile operator; reactor-service operator

Controls gamma radiation equipment to irradiate materials for scientific research: Inserts capsules of materials to be irradiated into tubes leading to reactor core, using extension tool. Computes radiation time and dosage for experiments, and gamma intensities required at various distances from grid, using standard formulas, conversion tables, and slide rule, and submits data to supervisor for review. Tends cutoff saw, mounted on water-filled canal floor (radiation shield), that cuts fuel elements to size to fit into shielding boxes, using extension tools. Places fuel elements in geometric configurations around tube in gamma facility according to radiation intensity specifications. Lowers experimental materials, such as foods, plastics, or metal, into tube to subject material to irradiation for specified period of time. Lowers extension tool into floor of canal and transfers materials from completed experiments, and spent fuel elements discharged from reactor, to storage area on canal floor or into cask for subsequent shipment. Writes summary of irradiation activities performed. Monitors instruments and gauges that control heating, ventilating, steam, and water systems, and instruments that record gamma intensity, temperatures of experiments, and fuel elements in canal.
GOE: 02.04.01 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 77

015.362-018 HOT-CELL TECHNICIAN (profess. & kin.) alternate titles: irradiation technician

Operates remote-controlled equipment in hot cell to conduct metallurgical and chemical tests on radioactive materials: Controls slave manipulators from outside cell to remove metal or chemical materials from shielded containers inside hot cell and places on bench or equipment work station. Tests chemical or metallurgical properties of materials according to standardized procedures, and observes reaction through cell window. Sets up and operates machines to cut, lap, and polish test pieces, following blueprints, x-ray negatives, and sketches. Tests physical properties, using equipment, such as tensile tester, hardness tester, metallographic unit, micrometer, and gauges. Immerses test sample in chemical compound to prepare for testing. Places irradiated nuclear fuel materials in environmental chamber to test reaction to temperature changes. Records results of tests for further analysis by engineers, scientists, or customers. Places specimen in shielded container for removal from cell, using manipulators. Participates in cleaning and decontamination of cell during maintenance shutdown. May devise adapters and fixtures for use in hot cell operations.
GOE: 02.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

015.362-022 RADIOISOTOPE-PRODUCTION OPERATOR (profess. & kin.) alternate titles: isotope-production technician

Controls laboratory compounding equipment enclosed in protective hot cell to prepare radioisotopes and other radioactive materials for use as tracers for biological, biomedical, physiological, and industrial purposes according to written procedures: Places specified amounts of chemicals into container to be irradiated at nuclear reactor or with other irradiation equipment. Secures vacuum pump head to outlet valve on special container to replace air with inert gas, and routes container to irradiation facility. Receives irradiated chemicals delivered in shielded cell. Moves manipulator to open container and transfer irradiated contents into glass vessel. Opens pneumatic valves or uses manipulators to add specified types and quantities of chemical reagents into glass vessel to produce radioactive product. Controls manipulators to pour liquids required to perform standard chemical analyses involving titration and filtration. Withdraws radioactive sample for transport to chemical laboratory for analysis. Fills shipping container inside cell with prescribed quantity of radioisotope material for shipment pending sample approval.
GOE: 02.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

015.362-026 REACTOR OPERATOR, TEST-AND-RESEARCH (profess. & kin.)

Controls operation of nuclear reactor to create fissionable materials used for research purposes, study structure of atoms, and determine properties of materials: Positions fuel elements (uranium) and object to be irradiated in position in reactor core, using slave manipulators. Installs instrumentation leads in core to measure operating temperature and pressure in reactor working from mockups, blueprints, and wiring and instrumentation diagrams. Activates reactor and inserts object to be irradiated into rabbit (pneumatic) tube, beam hole, or irradiation tunnel according to size of object and nature of experiment. Monitors instruments at console and reactor panels to control chain reaction, following directions of nuclear experimenters. Calculates applicable limits of operating factors, such as temperature and pressure, using standard formulas, an adjusts controls to maintain operating conditions, such as power level, airflo and waterflow, temperature, and radiation and neutron levels in reactor withi operating limits. Records data, such as type of material irradiated, exposur time, pile atmospheric conditions, and position of control rods in core. Disassembles reactor parts, such as core plug (shield) and control rods, using cra and handtools. Lifts spent fuel elements and irradiated objects from core, usin extension tool, and drops them through chute into canal for recovery of fissionable material. May work as member of team and alternate between opera ing reactor controls and monitoring instruments, gauges, and other recordin devices in control room.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

015.384-010 SCANNER (profess. & kin.)

Compiles lists of events (collisions of atomic nuclei) from photographs o bubble chamber, cloud chamber, or other particle detector, and operates machine to record characteristics of events into computers: Observes projecte photographs to locate particle tracks, locate and count events indicated b tracks, and identify nature of observed events. Receives instructions from sc entist directing project as to specific events that are important in experimen and identifies such events from other events. Turns cranks to move projecto and locates point on track under crosshairs of eyepiece. Enters data into computer to record coordinates of particles. Repeats process to record successiv stages of tracks resulting from each event to provide information for scientis to identify particles. May use microscope fitted with scales and protractors t scan photographic emulsions previously exposed to direct radiation and to compute direction, angle, length, curvature, density, and depth of tracks from standard formulas.
GOE: 02.04.01 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

017 DRAFTERS, N.E.C.

This group includes occupations, not elsewhere classified, concerned wi preparing drawings used to communicate engineering ideas and information.

017.161-010 DRAFTER, CHIEF, DESIGN (utilities)

Oversees DRAFTERS, ARCHITECTURAL (profess. & kin.); DRAFTERS ELECTRICAL (profess. & kin.); DRAFTERS, MECHANICAL (profess. & kin.); and DRAFTERS, STRUCTURAL (profess. & kin.) in drawing design of indoor and outdoor facilities and structures of electrical or gas power plan and substations. Consults with engineering staff on development of plans an designs for buildings and installations and prepares layout diagrams to ensur accurate interpretation of designs by workers supervised.
GOE: 05.03.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

017.261-010 AUTO-DESIGN CHECKER (auto. mfg.) alternate titles checker, product design

Examines detail, layout, and master drawings of either auto-body or chass parts, assemblies, and systems, for practicality of design, accuracy of math matical calculations, dimensional accuracy, projection, and conformity to spec fications and standards, using computerized work aids. Applies knowlege o auto-body and chassis design, methods of manufacture and assembly, and draf ing techniques and procedures. Discusses necessary changes with staff membe and coordinates corrections.
GOE: 05.03.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 90

017.261-014 DESIGN DRAFTER, ELECTROMECHANISMS (profess. & kin.)

Drafts designs of electromechanical equipment such as aircraft engine subassemblies, electronic optical-character-recognition and related data processin systems, gyroscopes, rocket engine control systems, automatic materials handling and processing machinery, or bio-medical equipment: Confers with eng neers and other drafters to interpret design concepts, determine nature and typ of required detailed working drawings, and coordinate work with others. Draft detail and assembly drawings performing duties described under DRAFTE (profess. & kin.) Master Title. Compiles data, computes quantities, determine materials needed, and prepares cost estimates.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

017.261-018 DETAILER (profess. & kin.)

Drafts detailed drawings of parts of machines or structures from rough o general design drawings: Shows dimensions, material to be used, and other information necessary to make detailed drawing clear and complete. Makes tracing of finished drawing on semitransparent paper from which blueprints can b made. Performs other duties as described under DRAFTER (profess. & kin Master Title. May specialize in preparing detail drawings for specific type o machine, structure, or product.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

017.261-022 DETAILER, FURNITURE (profess. & kin.)

Prepares detailed shop drawings in scale or full size, from blueprints of FURNITURE DESIGNER (furniture), showing methods of construction and upholstering, and indicating sizes and kinds of material to be used. Performs othe duties as described under DRAFTER (profess. & kin.) Master Title.
GOE: 05.03.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

017.261-026 DRAFTER, COMMERCIAL (profess. & kin.)
Performs general duties of DRAFTER (profess. & kin.) Master Title in all-round drafting, such as laying out location of buildings, planning of arrangements in offices, large rooms, store buildings, and factories, and drawing of charts, forms, and records. Paints and washes colored drawings when required.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 6 DLU: 77

017.261-030 DRAFTER, DETAIL (profess. & kin.)
Makes detailed drawings, in accordance with customers' orders, to provide shop departments with accurate information for manufacture of structural and ornamental construction parts: Confers with customers. Makes freehand sketches of designs and drawings of approved sketches. Advises supervisory personnel on difficult or obscure problems.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

017.261-034 DRAFTER, HEATING AND VENTILATING (profess. & kin.)
Draws plans for installation of heating, air-conditioning, and ventilating equipment, performing duties of DRAFTER (profess. & kin.) Master Title. May calculate heat loss and heat gain for buildings for use in determining equipment specifications, using calculator and following standardized procedures. May specialize in drawing plans for installation of refrigeration equipment only and be designated Drafter, Refrigeration (profess. & kin.).
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

017.261-038 DRAFTER, PLUMBING (profess. & kin.)
Performs duties of DRAFTER (profess. & kin.) Master Title but specializes in drawing of plans for installation of plumbing equipment.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

017.261-042 DRAFTER, AUTOMOTIVE DESIGN (auto. mfg.)
Designs and drafts working layouts and master drawings of automotive vehicle components, assemblies, and systems from specifications, sketches, models, prototype or verbal instructions, applying knowledge of automotive vehicle design, engineering principles, manufacturing processes and limitations, and conventional and computer drafting techniques and procedures, using drafting instruments and computerized work aids: Analyzes specifications, sketches, engineering drawings, ideas and related design data to determine critical factors affecting design of components based on knowledge of previous designs and manufacturing processes and limitations. Draws rough sketches and performs mathematical computations to develop design and work out detailed specifications of components. Applies knowledge of mathematical formulas and physical laws and uses conventional and computerized work aids to make calculations. Performs preliminary and advanced work in development of working layouts and final master drawings adequate for detailing parts and units of design. Makes revisions to size, shape and arrangement of parts to create practical design. Confers with AUTOMOTIVE ENGINEER (auto. mfg.) 007.061-010 and others on staff to resolve design problems. Specializes in design of specific type of body or chassis components, assemblies or systems, such as door panels, chassis frame and supports, or braking system.
GOE: 05.03.02 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 90

017.281-010 AUTO-DESIGN DETAILER (auto. mfg.)
Drafts full-size or scale detail drawings of either auto-body or chassis parts and assemblies from specifications, master drawings, layouts, models, prototypes, sketches, or verbal instructions, for engineering and manufacturing purposes [DRAFTER (profess. & kin.) Master Title], applying knowledge of auto-body or chassis structure and methods of manufacture and assembly.
GOE: 05.03.02 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 90

017.281-014 DRAFTER APPRENTICE (profess. & kin.)
Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 6 DLU: 77

017.281-018 DRAFTER, ASSISTANT (profess. & kin.)
Copies plans and drawings prepared by DRAFTER (profess. & kin.) Master Title by tracing them with ink and pencil on transparent paper or cloth spread over drawings, using triangle, T-square, compass, pens, and other drafting in- truments. Makes simple sketches or drawings under close supervision.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 77

17.281-026 DRAFTER, AUTOMOTIVE DESIGN LAYOUT (auto. mfg.)
Prepares working layouts and master drawings of automotive vehicle compo- ents, assemblies, or systems from specifications, prior layouts, well-defined ketches, models or verbal instructions sufficient for detailing, applying knowl- dge of conventional and computerized drafting techniques and procedures, utomotive vehicle design, manufacturing processes and limitations, using con- entional drafting instruments and computerized work aids: Studies specifica- ons, sketches, notes, and other design data and measures prior layouts, using ales and dividers, to determine details and dimensions of components being id out from superimposed views and sections of parts on layouts. Lays out n vellum major or minor components, assemblies, or systems in full-scale orking layouts. Performs mathematical calculations to work out detailed addi- ons to specifications, applying knowledge of mathematical formulas, using ide rule or digital calculators. Develops design of details not completely de- ned. Projects sections and auxiliary views of components on layouts. Makes orrections, revisions, and changes to layouts as directed by AUTO-DESIGN HECKER (auto. mfg.) 017.261-010 or DRAFTER, AUTOMOTIVE DESIGN (auto. mfg.) 017.261-042. Drafts master drawing of approved design on mylar, aluminum, or other materials. Specializes in laying out specific type of body or chassis components, assemblies, or systems. Coordinates and works in conjunction with other workers designing, laying out, or detailing same or related structures. May direct activities of detailers.
GOE: 05.03.02 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 90

017.281-030 DRAFTER, OIL AND GAS (petrol. & gas; petrol. refin.)
Drafts plans and drawings for layout, construction, and operation of oil fields, refineries, and pipeline systems from field notes, rough or detailed sketches, and specifications: Develops detail drawings for construction of equipment and structures, such as drilling derricks, compressor stations, gasoline plants, frame, steel, and masonry buildings, piping manifolds and pipeline systems, and for manufacture, fabrication, and assembly of machines and machine parts [DRAFTER, ARCHITECTURAL (profess. & kin.); DRAFTER, CIVIL (profess. & kin.); DRAFTER, MECHANICAL (profess. & kin.)]. Prepares maps of pipeline systems and oil and gas locations, using field survey notes and aerial photographs [DRAFTER, CARTOGRAPHIC (profess. & kin.)]. May draft topographical maps or develop maps to represent geological stratigraphy and locations of oil and gas deposits, using geological and geophysical prospecting and surveying data [DRAFTER, GEOLOGICAL (petrol. & gas); DRAFTER, GEOPHYSICAL (petrol. & gas)].
GOE: 05.03.02 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 77

017.281-034 TECHNICAL ILLUSTRATOR (profess. & kin.) alternate titles: engineering illustrator; production illustrator
Lays out and draws illustrations for reproduction in reference works, brochures, and technical manuals dealing with assembly, installation, operation, maintenance, and repair of machines, tools, and equipment: Prepares drawings from blueprints, designs, mockups, and photoprints by methods and techniques suited to specified reproduction process or final use, such as blueprint, photo-offset, and projection transparencies, using drafting and optical equipment. Lays out and draws schematic, perspective, orthographic, or oblique-angle views to depict function, relationship, and assembly-sequence of parts and assemblies, such as gears, engines, and instruments. Shades or colors drawing to emphasize details or to eliminate undesired background, using ink, crayon, airbrush, and overlays. Pastes instructions and comments in position on drawing. May draw cartoons and caricatures to illustrate operation, maintenance, and safety manuals and posters.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

017.684-010 TAPER, PRINTED CIRCUIT LAYOUT (electron. comp.)
Places (tapes) adhesive symbols and precision tape on sheets of mylar in conformance with preliminary drawing of printed circuit board (PCB) to produce master layout: Places, aligns, and secures preliminary drawing of PCB and successive layers of transparent sheets of mylar on lighted drafting table, using register bar. Selects specified symbols and width of tape to indicate peak voltage potential. Cuts tape and places tape and adhesive symbols on specified sheets of mylar to outline board size, to indicate connector pads, placement of various components, and to trace circuitry of PCB as indicated on underlying preliminary drawing, using utility knife, precision grid, and straightedge. Places specified adhesive identification and reference numbers on master layout. Reproduces blueprint copy of master layout, using print machine. Inspects copy to verify accuracy.
GOE: 05.03.02 STRENGTH: S GED: R2 M2 L2 SVP: 2 DLU: 86

018 SURVEYING/CARTOGRAPHIC OCCUPATIONS

This group includes occupations concerned with determining, delineating, planning, and positioning tracts of land, natural and constructed features, coastlines, and land areas. Typical specialized surveys include property, cartography, construction, geodesy, hydrography, mining, photogrammetry, topography, land development, and mapping.

018.131-010 SUPERVISOR, CARTOGRAPHY (profess. & kin.)
Supervises and coordinates activities of DRAFTERS, CARTOGRAPHIC (profess. & kin.); PHOTOGRAMMETRISTS (profess. & kin.); and other personnel concerned with preparation of maps or map components: Develops design concept of map product. Defines production specifications, such as projection, scale, size, and colors. Provides guidelines for source material to be used, such as maps, automated mapping products, photographs, survey data, and place names. Supervises and coordinates compilation and editing of product components and monitors reproduction. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

018.161-010 SURVEYOR, MINE (profess. & kin.)
Conducts surveys at surface and subsurface mine sites to obtain data used in planning mining operations: Takes instrument readings of sun or stars and calculates longitude and latitude to determine mine location. Directs survey technicians and helpers [SURVEYOR HELPER (any industry) 869.567-010] in use of electronic surveying equipment, light emitting systems, or other instruments to transfer surface survey positions and directions to underground areas and to survey assigned sections. Computes data necessary for driving and connecting underground passages to control direction and extent of mining operation. Computes volume of coal or ore in portions of mine, using survey data. Surveys and calculates volume of material deposits, spoil piles, or veins, and

amount of overburden to be removed. Drafts or directs others to draft maps of survey data. May assist MINE SUPERINTENDENT (mine & quarry) 181.117-014 and MINING ENGINEER (mine & quarry) 101.061-014 in planning mining operations. May conduct surveys of tunnels, subway sites, and underground storage facilities.
GOE: 05.03.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 80

018.167-010 CHIEF OF PARTY (profess. & kin.)
Leads work of survey party under direction of LAND SURVEYOR (profess. & kin.), performing surveying duties not requiring licensure.
GOE: 05.03.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

018.167-014 GEODETIC COMPUTATOR (profess. & kin.) alternate titles: topographic computator
Calculates latitude, longitude, angles, areas, and other information for mapmaking from field notes secured by engineering survey party, using reference tables and calculating machine or computer.
GOE: 05.03.01 STRENGTH: S GED: R5 M5 L4 SVP: 6 DLU: 77

018.167-018 LAND SURVEYOR (profess. & kin.)
Plans, organizes, and directs work of one or more survey parties engaged in surveying earth's surface to determine precise location and measurements of points, elevations, lines, areas, and contours for construction, mapmaking, land division, titles, mining or other purposes: Researches previous survey evidence, maps, deeds, physical evidence, and other records to obtain data needed for surveys. Develops new data from photogrammetric records. Determines methods and procedures for establishing or reestablishing survey control. Keeps accurate notes, records, and sketches to describe and certify work performed. Coordinates findings with work of engineering and architectural personnel, clients, and others concerned with project. Assumes legal responsibility for work and is licensed by state.
GOE: 05.01.06 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

018.167-022 MANAGER, LAND SURVEYING (profess. & kin.)
Plans, directs, and coordinates work of survey parties, and related staff, engaged in surveying earth's surface and preparing reports and legal descriptions of land: Develops organization policy or interprets it to staff. Prepares or approves budget for unit or organization within assigned area of responsibility. Coordinates work of LAND SURVEYOR (profess. & kin.) with that of legal, engineering, architectural, and other staff on project. Directs survey parties and projects, and reviews and certifies completed work to satisfy legal requirements. Writes or directs the writing of descriptions of land to satisfy legal requirements according to standard surveying practices. Appears as expert witness in court in cases involving land or boundary disputes. Monitors new technology, and evaluates and purchases or authorizes purchase of new equipment and supplies. Selects new staff for employment and takes disciplinary action when necessary. Assumes legal responsibility for work performed and is licensed by state.
GOE: 05.02.06 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 77

018.167-026 PHOTOGRAMMETRIC ENGINEER (profess. & kin.)
Plans, coordinates, and directs activities of workers concerned with conducting aerial surveys and preparing topographic materials from aerial photographs and other data: Analyzes survey objectives and specifications, utilizing knowledge of survey uses, such as municipal and ecological planning, property and utility mapping, and petroleum and mineral exploration. Selects most appropriate and economical survey methods, using knowledge of capabilities of aerial photography and applications of remote sensing (imagery through electronic scanning). Estimates cost of survey. Advises customers and department supervisors regarding flights for aerial photography and plans for ground surveys designed to establish base lines, elevations, and other geodetic measurements. Prepares charts and tables for aerial navigation, to specify flight path, altitude, and airspeed of camera-carrying aircraft. Computes geodetic measurements and interprets survey data from ground or aerial photographs or remote-sensing images to determine position, shape, and elevation of geomorphic and topographic features. Conducts research in surveying and mapping methods and procedures, using knowledge of techniques of photogrammetric map compilation, electronic data processing, and flight and control planning. May direct one or more phases of technical operations concerned with preparing survey proposals, negotiating with clients, scheduling activities, conducting surveys, processing data, reviewing work quality, and training and assigning personnel.
GOE: 05.03.01 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 77

018.167-030 SUPERVISOR, MAPPING (petrol. & gas; pipe lines)
Supervises and coordinates activities of workers engaged in mapping production areas of petroleum or natural gas company: Supervises drafting personnel in drafting maps used for exploration, leasing of lands, and construction and operation of production facilities, such as pumping stations, storage tanks, drilling derricks, and pipelines. Reviews completed maps for neatness and accuracy. May supervise production of blueprints, photostats, and photographs.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

018.167-034 SURVEYOR ASSISTANT, INSTRUMENTS (profess. & kin.)
Obtains data pertaining to angles, elevations, points, and coutours used for construction, map making, mining, or other purposes, using alidade, level, transit, plane table, Theodolite, electronic distance measuring equipment, and other surveying instruments. Compiles notes, sketches, and records of data obtained and work performed. Directs work of subordinate members of survey team. Performs other duties relating to surveying work as directed by CHIEF OF PARTY (profess. & kin.).

GOE: 05.03.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

018.167-038 SURVEYOR, GEODETIC (profess. & kin.)
Plans, directs, or conducts surveys of land areas of such size that shap
size of earth exerts sufficient influence on survey measurements to requir
of special high-accuracy techniques, including astronomical observation
complex computations to compile data used in preparation of geodetic
and charts.
GOE: 05.03.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

**018.167-042 SURVEYOR, GEOPHYSICAL PROSPECTING (petr
gas)**
Locates and marks sites selected for conducting geophysical prospectin
tivities concerned with locating subsurface earth formations likely to c
petroleum deposits. Makes precise determinations of elevations and re
other characteristics of terrain. May obtain permits for prospecting from
erty owner.
GOE: 05.03.01 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 77

**018.167-046 SURVEYOR, MARINE (profess. & kin.) alternate titles:
veyor, hydrographic**
Makes surveys of harbors, rivers, and other bodies of water to dete
shore lines, topography of bottom, or other items for such purposes as
mining navigable channels, and securing data for construction of breakw
piers, and other marine structures.
GOE: 05.03.01 STRENGTH: M GED: R5 M5 L4 SVP: 7 DLU: 77

**018.261-010 DRAFTER, CARTOGRAPHIC (profess. & kin.) alterna
tles: map maker; mapper**
Draws maps of geographical areas to show natural and constructed fea
political boundaries, and other features, performing duties described
DRAFTER (profess. & kin.) Master Title: Analyzes survey data, source
and photographs, computer or automated mapping products, and other re
to determine location and names of features. Studies legal records to esta
boundries of properties, and local, national, and international areas of pol
economic, social, or other significance. Geological maps are drawn by DR
ER, GEOLOGICAL (petrol. & gas).
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 77

018.261-018 EDITOR, MAP (profess. & kin.)
Verifies accuracy and completeness of topographical maps from aerial p
graphs and specifications: Views photographs and other reference mate
such as old maps and records and examines corresponding area of map t
ify correct identification of specified topographical features and accura
contour lines. Verifies correct location and accuracy of scaled distance
tween control points and reference lines. Examines reference materials to
omission of topographical features, poor register, or other defects in ph
raphy or draftsmanship. Marks errors and makes corrections, such as numb
grid lines or lettering names of rivers or towns.
GOE: 05.03.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

018.261-022 MOSAICIST (profess. & kin.)
Lays out and matches aerial photographs to form photographic mosaic
ographic area for subsequent use in photogrammetric activities, such as
graphical mapping: Lays out photographic prints on table according to seq
in which photographs were taken during flightpath of aircraft. Examines
to locate established landmarks and notes absence of normal overlap of ad
prints indicating deflection of aircraft from prescribed flightpath. Locate
marks specified reference points, such as structures and highway or rail
tions. Computes and measures scaled distances between reference points
tablish exact relative position of adjoining prints. Trims excess from edg
overlapping prints and glues prints to backing board, maintaining scale
tances between reference points and alignment of adjoining prints.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

**018.261-026 PHOTOGRAMMETRIST (profess. & kin.) alternate
cartographic technician**
Analyzes source data and prepares mosaic prints, contour maps, p
sheets, and related cartographic materials requiring technical mastery of p
grammetric techniques and principles: Prepares original maps, charts, and
ings, from aerial photographs, and survey data and applies standard mathe
cal formulas and photogrammetric techniques to identify, scale, and orient
detic points, elevations, and other planimetric or topographic features an
tographic detail. Graphically delineates aerial photographic detail, such as
trol points, hydrography, topography, and cultural features, using pre
stereoplotting apparatus or drafting instruments. Revises existing map
charts and corrects maps in various stages of compilation. May prepare r
plastic, or plaster three-dimensional relief models.
GOE: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

018.262-010 FIELD-MAP EDITOR (profess. & kin.)
Identifies and verifies information shown on aerial photographs used in
making: Travels over photographed area to observe and record all cultura
drainage features shown and not shown on photograph. Verifies num
names, and classes of roads and highways, location and number of rail
location of state and county lines, and location and identification of str
rivers, lakes, schools, and major buildings. Marks observations on map ov
using specified symbols. Determines elevation of hills, trees, and buil
using geometry. Obtains boundary and other official information from c
records. May use stereoscope to combine information from two aerial map

GOE: 05.03.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

018.281-010 STEREO-PLOTTER OPERATOR (profess. & kin.) alternate titles: stereo operator; stereoptic projection topographer

Draws topographical maps from aerial photographs, using instruments that produce simultaneous projections of two photographs, taken from different positions, in manner that permits steroscopic viewing for delineation of planimetric detail and drawing of contours: Orients plotting instruments to form three dimensional stereo image. Orients plotting instruments to form three dimensional stereo image. Views stereoscopic image by using anaglyphic, binocular, or image alternator techniques. Determines contour interval and vertical scale of image, using mathematical table. Traces contours and topographical details to produce map.
GOE: 05.03.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

019 OCCUPATIONS IN ARCHITECTURE, ENGINEERING, AND SURVEYING, N.E.C.

This group includes occupations, not elsewhere classified, concerned with the application of the theoretical and practical aspects of engineering and architecture.

019.061-010 BIOMEDICAL ENGINEER (profess. & kin.)

Conducts research into biological aspects of humans or other animals to develop new theories and facts, or test, prove, or modify known theories of life systems, and to design life-support apparatus, utilizing principles of engineering and bio-behavioral sciences. Plans and conducts research concerning behavioral, biological, psychological, or other life systems. Studies engineering aspects of bio-behavioral systems of humans, utilizing knowledge of electrical, mechanical, chemical, or other engineering principles and knowledge of human anatomy and physiology. Develops *mathematical models* to simulate human bio-behavioral systems in order to obtain data for measuring or controlling life processes, utilizing knowledge of computer, graphics, and other related technologies. Designs and develops instruments and devices, such as artificial organs, cardiac pacemakers, or ultrasonic imaging devices, capable of assisting medical or other health-care personnel in observing, repairing, or treating physical ailments or deformities, using knowledge of materials compatible with body tissues, energy exchanges within the body, and instrumentation capable of measuring and controlling body functions. May specialize in design and development of biomedical equipment used by medical facilities and be known as Clinical Engineer (profess. & kin.).
GOE: 02.02.01 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 77

019.061-014 MATERIALS ENGINEER (profess. & kin.)

Evaluates technical and economic factors, recommending engineering and manufacturing actions for attainment of design objectives of process or product by applying knowledge of material science and related technologies: Reviews plans for new product and factors, such as strength, weight, and cost to submit material selection recommendations ensuring attainment of design objectives. Plans and implements laboratory operations to develop material and fabrication procedures for new materials to fulfill product cost and performance standards. Confers with producers of materials, such as metals, ceramics, or polymers, during investigation and evaluation of materials suitable for specific product applications. Reviews product failure data and interprets laboratory tests and analyses to establish or rule out material and process causes.
GOE: 05.01.06 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

019.061-018 OPTICAL ENGINEER (profess. & kin.) alternate titles: optical designer

Designs optical systems with specific characteristics to fit within specified physical limits of precision optical instruments, such as still- and motion-picture cameras, lens systems, telescopes, and viewing and display devices: Determines specifications for operations and makes adjustments to calibrate and obtain specified operational performance. Determines proper operation of optical system and makes adjustments to perfect system. Designs mounts for components to hold them in proper planes in relation to each other and instrument in which they will be used. Designs inspection instruments to test optical systems for defects, such as abberations and deviations. May work with electrical and mechanical engineering staff to develop overall design of optical system.
GOE: 05.01.07 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

019.061-022 ORDNANCE ENGINEER (chemical; ordnance)

Designs, tests, and coordinates development of explosive ordnance material to meet military procurement specifications and to prepare project proposals for negotiating production contracts: Participates in discussions with military authorities to determine characteristics desired in explosive material, nature of target objective, and type of delivery system to be used. Prepares or directs preparation of design drawings and specifications for approval by procurement authorities, according to knowledge of explosives and plastics chemistry, ballistics theory, fuse technology, metallurgy, electronics, fluidics, and techniques of efficient production. Tests sample shells, warheads, or similar material under simulated military conditions [PROOF TECHNICIAN (ordnance)]. Evaluates tests to determine acceptability of ordnance items or need for redesign. Presents findings orally and in writing to procurement authorities and demonstrates successful designs on proving ground. May negotiate procurement contracts. May coordinate pilot or serial production of ordnance items. May participate in development of delivery systems, fire-control components, and nonexplosive material. May be designated according to type of ordnance item developed.
GOE: 05.01.08 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

019.061-026 RELIABILITY ENGINEER (profess. & kin.)

Analyzes preliminary engineering design concepts of major product, such as aircraft, naval vessel, or electronic communication or control system to recommend design or test methods for attaining customer-specified operational reliability, using knowledge of reliability engineering and other technologies: Analyzes preliminary plans and develops reliability engineering program to achieve customer reliability objectives. Analyzes projected product utilization and calculates cumulative effect on final system reliability of individual part reliabilities. Drafts *failure mode and effect analysis* sheets or formulates *mathematical models*, using computer-aided engineering equipment, to identify units posing excessive failure risks and support proposed changes in design. Enters data to simulate electrical inputs, transient conditions, temperature, stress, and other factors to develop computer models, and analyzes and adjusts design to predict and improve system reliability. Advises and confers with engineers in design review meetings to give reliability findings and recommendations. Determines units requiring environmental testing and specifies minimum number of samples to obtain statistically valid data. Reviews subcontractors' proposals for reliability program and submits evaluation for decision. Reviews engineering specifications and drawings, proposing design modifications to improve reliability within cost and other performance requirements. Observes conduct of tests at supplier, plant, or field locations to evaluate reliability factors, such as numbers and causes of unit failures. Monitors failure data generated by customer using product to ascertain potential requirement for product improvement.
GOE: 05.01.04 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 86

019.081-010 MAINTAINABILITY ENGINEER (profess. & kin.)

Analyzes engineering design of proposed product, such as aircraft, naval vessel, or electronic control or navigation system, and submits specifications for maintenance requirements, utilizing knowledge of maintainability engineering and related technologies: Analyzes customer's initial proposal for product utilization and recommends basic product specifications and techniques for satisfying customer requirements. Reviews engineering specifications and drawings during development and proposes design refinements to improve ratio of operational time to maintenance time. Participates in engineering discussions concerning design alternatives effecting product maintainability. Determines crew makeup, training requirements, and maintenance time by evaluating data from tests and maintainability programs of related products. Reviews subcontractor's technical practices for assuring maintainability of equipment and parts and submits evaluation for managment decision. Specifies standardized tests or drafts new test programs for demonstrating product maintainability in company or supplier test. Observes maintainability tests at supplier and plant locations to verify operations are conducted according to standards.
GOE: 05.01.08 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

019.081-014 PHOTOGRAPHIC ENGINEER (profess. & kin.) alternate titles: photo-optical instrumentation engineer

Designs and constructs special purpose photographic equipment and materials for use in scientific or industrial applications, utilizing knowledge of various engineering disciplines, chemistry, and photographic equipment and techniques: Plans setup of equipment, specific procedures, and materials needed to meet data acquisition and measurement requirements. May advise others in such fields as high speed photography, radiography, graphic arts, and aerial and space photography.
GOE: 05.01.07 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

019.081-018 POLLUTION-CONTROL ENGINEER (profess. & kin.)

Plans and conducts engineering studies to analyze and evaluate pollution problems, methods of pollution control, and methods of testing pollution sources to determine physiochemical nature and concentration of contaminants: Reviews data collected by POLLUTION-CONTROL TECHNICIAN (profess. & kin.) from pollution emission sources. Performs engineering calculations to determine pollution emissions from various industrial sources and to evaluate effectiveness of pollution control equipment. Reviews compliance schedules and inspection reports to ensure compliance with pollution control regulations. Recommends issuance or denial of permits for industries to construct or operate facilities. Advises enforcement personnel of noncompliance or unsatisfactory compliance with regulations. Develops or modifies techniques for monitoring pollution. Calibrates and adjusts pollution control monitors to ensure accurate functioning of instruments. May be designated according to specialty as Air-Pollution Engineer (profess. & kin.); Noise Abatement Engineer (profess. & kin.); Water Quality-Control Engineer (profess. & kin.).
GOE: 05.01.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

019.161-010 SUPERVISOR, ESTIMATOR AND DRAFTER (utilities)

Supervises ESTIMATORS AND DRAFTERS (utilities) in drawing up specifications, instructions, and cost estimates for installation of gas or electric-power distribution systems: Studies work orders or construction proposals and selects appropriate survey procedures and schedules work assignments. Reviews completed construction drawings and cost estimates for accuracy and conformity to standards and regulations. Confers with engineers and subordinates and assists in field surveys to resolve problems. Directs maintenance of files of blueprints, maps, construction sketches, cost estimates, and related records.
GOE: 05.03.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

019.161-014 TEST TECHNICIAN (profess. & kin.)

Prepares specifications for fabrication, assembly, and installation of apparatus and control instrumentation used to test experimental or prototype mechanical,

electrical, electromechanical, hydromechanical, or structural products, and conducts tests and records results, utilizing engineering principles and test technology: Confers with engineering personnel to resolve fabrication problems relating to specifications and to review test plans, such as types and cycles of tests, conditions under which tests are to be conducted, and duration of tests. Fabricates precision parts for test apparatus, using metalworking machines such as lathes, milling machines, and welding equipment, or interprets specifications for workers fabricating parts. Examines parts for conformance with dimensional specifications, using precision measuring instruments. Coordinates and participates in installing unit or system to be tested in test fixtures, connecting valves, pumps, hydraulic, mechanical or electrical controls, cabling, tubing, power source, and indicating instruments. Activates controls to apply electrical, hydraulic, pneumatic, or mechanical power and subject test item to successive steps in test cycle. Monitors controls and instruments and records test data for engineer's use. May recommend changes in test methods or equipment for engineering review. Workers are classified according to engineering specialty or type of product tested.
GOE: 05.01.04 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

019.167-010 LOGISTICS ENGINEER (profess. & kin.) alternate titles: logistics specialist

Directs and coordinates program activities designed to provide subcontractors, management, and customers with logistics technology that ensures effective and economical support concerned for manufacturing or servicing of products, systems, or equipment: Analyzes contractural commitments, customer specifications, design changes, and other data to plan and develop logistic program activities from conceptual stage through life-cycle of product. Develops and implements program activities, coordinates efforts of subcontractors, production departments, and field service personnel, and resolves problems in area of logistics to ensure meeting of contractural commitments. Develops and initiates preparation of handbooks, bulletins, and information systems to provide and supply logistics support. Compiles data on standardization and interchangeability of parts to expedite logistics activities. Determines logistic support sequences and time phasing, problems arising from location of operational area, and other factors, such as environmental and human factors affecting personnel. May perform special research or technical studies critical to logistic support functions. May utilize computer techniques for analysis, simulation or information systems and documentation.
GOE: 05.01.06 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

019.167-014 PROJECT ENGINEER (profess. & kin.) alternate titles: chief engineer

Directs, coordinates, and exercises functional authority for planning, organization, control, integration, and completion of engineering project within area of assigned responsibility: Plans and formulates engineering program and organizes project staff according to project requirements. Assigns project personnel to specific phases or aspects of project, such as technical studies, product design, preparation of specifications and technical plans, and product testing, in accordance with engineering disciplines of staff. Reviews product design for compliance with engineering principles, company standards, customer contract requirements, and related specifications. Coordinates activities concerned with technical developments, scheduling, and resolving engineering design and test problems. Directs integration of technical activities and products. Evaluates and approves design changes, specifications, and drawing releases. Controls expenditures within limitations of project budget. Prepares interim and completion project reports.
GOE: 05.01.08 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 87

019.167-018 RESOURCE-RECOVERY ENGINEER (government ser.)

Plans and participates in activities concerned with study, development, and inspection of solid-waste resource recovery systems and marketability of solid-waste recovery products: Conducts studies of chemical and mechanical solid-waste recovery processes and system designs to evaluate efficiency and cost-effectiveness of proposed operations. Inspects solid-waste resource recovery facilities to determine compliance with regulations governing construction and use. Collects data on resource recovery systems and analyzes alternate plans to determine most feasible systems for specific solid-waste recovery purposes. Prepares recommendations for development of resource recovery programs, based on analysis of alternate plans and knowledge of physical properties of various solid-waste materials. Confers with design engineers, management personnel, and others concerned with recovery of solid-waste resources to discuss problems and provide technical advice. Coordinates activities of workers engaged in study of potential markets for reclaimable materials. Lectures civic and professional organizations and provides information about practices to media representatives to promote interest and participation in solid-waste recovery practices.
GOE: 05.01.02 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 86

019.187-010 PACKAGING ENGINEER (profess. & kin.)

Plans and directs activities concerned with design and development of protective packaging containers: Analyzes engineering drawings and specifications of product to determine physical characteristics of item, special-handling and safety requirements, and type of materials required for container. Consults with establishment's purchasing and production departments to determine costs and feasibility of producing proposed packaging. Develops or directs development of sketches, specifications, samples, and written analyses of proposed packaging in order to present design for approval. May confer with customers or sales
representatives to draw up contracts. May advise employer or customers on
ficient packing procedures, innovations in packaging materials, and utilizati
of sealing and fastening devices.
GOE: 05.03.09 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

019.261-010 BIOMEDICAL EQUIPMENT TECHNICIAN (profess.
kin.) alternate titles: biomedical electronics technician; bi
medical engineering technician

Repairs, calibrates, and maintains medical equipment and instrumentati
used in health-care delivery field: Inspects and installs medical and related tec
nical equipment in medical and research facilities for use by physicians, nurs
scientists, or engineers involved in researching, monitoring, diagnosing, a
treating physical ailments or dysfunctions. Services various equipment and a
paratus, such as patient monitors, electrocardiographs, blood-gas analyzers,
ray units, defibrillators, electrosurgical units, anesthesia apparatus, pacemake
blood-pressure transducers, spirometers, sterilizers, diathermy equipment,
house television systems, patient-care computers, and other related techni
paraphernalia. Repairs, calibrates, and maintains equipment, using handtoo
power tools, measuring devices, and knowledge of manufacturers' manua
troubleshooting techniques, and preventive-maintenance schedules. Safety-te
medical equipment and health-care facility's structural environment to ensu
patient and staff safety from electrical or mechanical hazards. Consults w
medical or research staff to ascertain that equipment functions properly a
safely, utilizing knowledge of electronics, medical terminology, human anato
and physiology, chemistry, and physics. May demonstrate and explain corr
operation of equipment to medical personnel. May modify or develop inst
ments or devices, under supervision of medical or engineering staff. May wo
as salesperson or service technician for equipment manufacturers or their sa
representatives.
GOE: 02.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

019.261-014 ESTIMATOR AND DRAFTER (utilities) alternate titles: d
tail and lay-out drafter; distribution estimator; lay-out a
detail drafter

Draws up specifications and instructions for installation of voltage transfor
ers, overhead or underground cables, and related electrical equipment used
conduct electrical energy from transmission lines or high-voltage distributi
lines to consumers: Studies work order request to determine type of servi
such as lighting or power, demanded by installation. Visits site of proposed
stallation and draws rough sketch of location. Takes measurements, such
street dimensions, distances to be spanned by wire and cable, or space availa
in existing buildings and underground vaults which affect installation and
rangement of equipment. Estimates materials, equipment, and incidentals ne
ed for installation. Draws master sketch showing relation of proposed instal
tion to existing facilities. Makes other drawings, such as pertaining to wir
connections or cross sections of underground cables, as required for instructio
to installation crew. Consults POWER-DISTRIBUTION ENGINEER (utiliti
003.167-046 on difficulties encountered. May draft sketches to scale [DRAF
ER, ELECTRICAL (profess. & kin.) 003.281-010]. May estimate labor and m
terial costs, using pricelists and records on previous projects. May inspect co
pleted installation of electrical equipment and related building circuitry to ver
conformance with specifications. May perform duties of LAND SURVEYO
(profess. & kin.) 018.167-018 and prepare specifications and diagrams for
stallation of gas distribution pipes owned by gas-electric utility.
GOE: 05.03.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

019.261-018 FACILITIES PLANNER (any industry) alternate titles:
fice-planning representative

Plans utilization of space and facilities for government agency or unit
business establishment consistent with requirements of organizational efficie
and available facilities and funds: Inspects buildings and office areas to evalu
suitability for occupancy, considering such factors as air circulation, lighti
location, and size. Measures or directs workers engaged in measurement of
cilities to determine total square footage available for occupancy. Compu
square footage available for each member of staff to determine whether mi
mum space restrictions can be met. Draws design layout, showing location
furniture, equipment, doorways, electrical and telephone outlets, and other
cilities. May review real estate contracts for compliance with government spe
fications and suitability for occupancy of employing agency. May direct wo
ers engaged in moving furniture and equipment and preparing facilities for
cupancy.
GOE: 05.01.06 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

019.261-022 TEST TECHNICIAN (agric. equip.)

Tests experimental and production agricultural equipment, such as tract
and power mowers and components to evaluate their performance, using
equipment and recording instruments: Reads data sheet denoting operating sp
ification for unit or component and type of evaluation required. Tests unit
conformance with operating requirements, such as resistance to vibration, spe
fied horsepower, and tensile strength and hardness of parts, using test equ
ment, such as bend-fatigue machine, dynamometer, strength tester, hardn
tester, analytical balance, and electronic recorder. Records data from dial rea
ings and graphs and computes values, such as horse-power and tensile stren
using algebraic formulas. Operates unit to evaluate attachment performan
such as depth of tillage or harvesting capabilities for different types of cro
Draws sketches and describes test procedures and results in test data log.
GOE: 05.03.07 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

019.261-026 FIRE-PROTECTION ENGINEERING TECHNICIAN (profess. & kin.)

Designs and drafts plans and estimates costs for installation of fire protection systems for facilities and structures, applying knowledge of drafting, physical science, engineering principles, and fire protection codes: Analyzes blueprints and specifications prepared by ARCHITECT (profess. & kin.) 001.061-010 to determine dimensions of system to meet fire protection codes. Determines design and size of system components, using calculator or computer. Drafts detailed drawing of system to ensure conformance to specifications and applicable codes. May negotiate relocation of system components with SUPERINTENDENT, CONSTRUCTION (construction) 182.167-026 to resolve conflicts of colocation with other systems. May inspect fire-damaged structures to detect malfunctions. May specialize in one type of fire protection system, such as foam, water, dry chemical, or vaporous gas or specialize in one type of establishment, such as construction, insurance, or government.

GOE: 05.03.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 86

019.261-030 LABORATORY TECHNICIAN (auto. mfg.)

Tests chemical and physical properties of materials used in manufacturing or assembling motor vehicles: Performs standard chemical and physical tests on parts, solutions, and materials used in producing motor vehicles, using conventional and computerized machines and work aids. Conducts quantitative and qualitative analyses to determine chemical and physical properties of experimental and developmental materials [LABORATORY TESTER (any industry) 029.261-010].

GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 90

019.261-034 LASER TECHNICIAN (electron. comp.; inst. & app.)

Constructs and tests prototype gas or solid-state laser devices, applying theory and principles of laser engineering and electronic circuits: Reviews project instructions, such as assembly layout, blueprints, and sketches, and confers with engineering personnel to clarify laser device specifications. Interprets production details, such as dimensions and functional requirements, for workers engaged in grinding mirror blanks, coating mirror surfaces, and machining metal parts. Installs and aligns optical parts, such as mirrors and waveplates, in laser body, using precision instruments. Turns controls of vacuum pump and gas transfer equipment to purge, evacuate, and fill laser body with specified volume and pressure of gases, such as helium, neon, or carbon dioxide, to test laser beam. Assembles completed laser body in chassis, and installs and aligns electronic components, tubing, and wiring to connect controls, such as valves, regulators, dials, and switches. Sets up precision electronic and optical instruments to test laser device, using specified electrical or optical inputs. Tests laser for gas leaks, using leak detector. Analyzes test data and reports results to engineering personnel. May prepare and write technical reports to recommend solutions to technical problems.

GOE: 05.03.05 STRENGTH: M GED: R5 M4 L4 SVP: 7 DLU: 90

019.267-010 SPECIFICATION WRITER (profess. & kin.)

Interprets architectural or engineering plans and prepares material lists and specifications to be used as standards by plant employees or contracting personnel in material processing or in manufacturing or construction activities: Analyzes plans and diagrams, or observes and makes notes on material processing, to determine material and material processing specifications, or specifications for manufacturing or construction activities. Writes technical descriptions specifying material qualities and properties, utilizing knowledge of material standards, industrial processes, and manufacturing procedures. May draw rough sketches or arrange for finished drawings or photographs to illustrate specified materials or assembly sequence. Workers usually specialize and are designated according to engineering specialization, product, or process.

GOE: 05.03.02 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

019.281-010 CALIBRATION LABORATORY TECHNICIAN (aircraft mfg.; electron. comp.) alternate titles: engineering laboratory technician; quality assurance calibrator; standards laboratory technician; test equipment certification technician

Tests, calibrates, and repairs electrical, mechanical, electromechanical, and electronic measuring, recording, and indicating instruments and equipment for conformance to established standards, and assists in formulating calibration standards: Plans sequence of testing and calibration procedures for instruments and equipment, according to blueprints, schematics, technical manuals, and other specifications. Sets up standard and special purpose laboratory equipment to test, evaluate, and calibrate other instruments and test equipment. Disassembles instruments and equipment, using handtools, and inspects components for defects. Measures parts for conformity with specifications, using micrometers, calipers, and other precision instruments. Aligns, repairs, replaces, and balances component parts and circuitry. Reassembles and calibrates instruments and equipment. Devises formulas to solve problems in measurements and calibrations. Assists engineers in formulating test, calibration, repair, and evaluation plans and procedures to maintain precision accuracy of measuring, recording, and indicating instruments and equipment.

GOE: 02.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 88

02 OCCUPATIONS IN MATHEMATICS AND PHYSICAL SCIENCES

This division includes occupations concerned with research pertaining to the physical universe, and the application of established mathematical and scientific laws and principles to specific problems and situations.

020 OCCUPATIONS IN MATHEMATICS

This group includes occupations concerned with the development of methodology in mathematics, statistics, and actuarial science, and the application of original and standardized mathematical techniques to the solution of problems in the social and physical sciences, engineering, and business.

020.067-014 MATHEMATICIAN (profess. & kin.)

Conducts research in fundamental mathematics and in application of mathematical techniques to science, management, and other fields, and solves or directs solutions to problems in various fields by mathematical methods: Conducts research in such branches of mathematics as algebra, geometry, number theory, logic, and topology, and studies and tests hypotheses and alternative theories. Conceives and develops ideas for application of mathematics to wide variety of fields, including science, engineering, military planning, electronic data processing, and management. Applies mathematics or mathematical methods to solution of problems in research, development, production, logistics, and other functional areas, utilizing knowledge of subject or field to which applied, such as physics, engineering, astronomy, biology, economics, business and industrial management, or cryptography. Performs computations, applies methods of numerical analysis, and operates or directs operation of desk calculators and mechanical and electronic computation machines, analyzers, and plotters in solving problems in support of mathematical, scientific, or industrial research activity. Acts as advisor or consultant to research personnel concerning mathematical methods and applications. May be designated according to function as Mathematician, Applied (profess. & kin.); Mathematician, Research (profess. & kin.).

GOE: 02.01.01 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 81

020.067-018 OPERATIONS-RESEARCH ANALYST (profess. & kin.)

Conducts analyses of management and operational problems and formulates mathematical or simulation models of problem for solution by computers or other methods: Analyzes problem in terms of management information and conceptualizes and defines problem. Studies information and selects plan from competitive proposals that affords maximum probability of profit or effectiveness in relation to cost or risk. Prepares model of problem in form of one or several equations that relates constants and variables, restrictions, alternatives, conflicting objectives and their numerical parameters. Defines data requirements and gathers and validates information applying judgment and statistical tests. Specifies manipulative or computational methods to be applied to model. Performs validation and testing of model to ensure adequacy, or determines need for reformulation. Prepares reports to management defining problem, evaluation, and possible solution. Evaluates implementation and effectiveness of research. May design, conduct, and evaluate experimental operational models where insufficient data exists to formulate model. May specialize in research and preparation of contract proposals specifying competence of organization to perform research, development, or production work. May develop and apply time and cost networks, such as Program Evaluation and Review Techniques (PERT), to plan and control large projects. May work in association with engineers, scientists, and management personnel in business, government, health, transportation, energy, manufacturing, environmental sciences or other technologies.

GOE: 11.01.01 STRENGTH: S GED: R6 M6 L6 SVP: 7 DLU: 77

020.067-022 STATISTICIAN, MATHEMATICAL (profess. & kin.) alternate titles: statistician, theoretical

Conducts research into mathematical theories and proofs that form basis of science of statistics and develops statistical methodology: Examines theories, such as those of probability and inference, to discover mathematical bases for new or improved methods of obtaining and evaluating numerical data. Develops and tests experimental designs, sampling techniques, and analytical methods, and prepares recommendations concerning their utilization in statistical surveys, experiments, and tests. Investigates, evaluates, and prepares reports on applicability, efficiency, and accuracy of statistical methods used by physical and social scientists, including STATISTICIANS, APPLIED (profess. & kin.), in obtaining and evaluating data.

GOE: 11.01.01 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

020.162-010 MATHEMATICAL TECHNICIAN (profess. & kin.) alternate titles: data-reduction technician

Applies standardized mathematical formulas, principles, and methodology to technological problems in engineering and physical sciences in relation to specific industrial and research objectives, processes, equipment and products: Confers with professional, scientific, and engineering personnel to plan project. Analyzes raw data from computer or recorded on photographic film or other media. Selects most practical and accurate combination and sequence of computational methods, using algebra, trigonometry, geometry, vector analysis and calculus to reduce raw data to meaningful and manageable terms. Selects most

economical and reliable combination of manual, mechanical, or data processing methods and equipment consistent with data reduction requirements. Modifies standard formulas to conform to data processing method selected. Translates data into numerical values, equations, flow charts, graphs or other media. Analyzes processed data to detect errors. May operate calculator or computer.
GOE: 11.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

020.167-010 ACTUARY (profess. & kin.)
Applies knowledge of mathematics, probability, statistics, principles of finance and business to problems in life, health, social, and casualty insurance, annuities, and pensions: Determines mortality, accident, sickness, disability, and retirement rates; constructs probability tables regarding fire, natural disasters, and unemployment, based on analysis of statistical data and other pertinent information. Designs or reviews insurance and pension plans and calculates premiums. Ascertains premium rates required and cash reserves and liabilities necessary to ensure payment of future benefits. Determines equitable basis for distributing surplus earnings under participating insurance and annuity contracts in mutual companies. May specialize in one type of insurance and be designated Actuary, Casualty (profess. & kin.); Actuary, Life (profess. & kin.).
GOE: 11.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

020.167-026 STATISTICIAN, APPLIED (profess. & kin.)
Plans data collection, and analyzes and interprets numerical data from experiments, studies, surveys, and other sources and applies statistical methodology to provide information for scientific research and statistical analysis: Plans methods to collect information and develops questionnaire techniques according to survey design. Conducts surveys utilizing sampling techniques or complete enumeration bases. Evaluates reliability of source information, adjusts and weighs raw data, and organizes results into form compatible with analysis by computers or other methods. Presents numerical information by computer readouts, graphs, charts, tables, written reports or other methods. Describes sources of information, and limitations on reliability and usability. May analyze and interpret statistics to point up significant differences in relationships among sources of information, and prepare conclusions and forecasts based on data summaries. May specialize in specific aspect of statistics or industrial activity reporting and be designated by specialty as Demographer (profess. & kin.) I; Statistician, Analytical (profess. & kin.); Statistician, Engineering And Physical Science (profess. & kin.).
GOE: 11.01.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

020.167-030 WEIGHT ANALYST (profess. & kin.) alternate titles: weight engineer
Analyzes and calculates weight data of structural assemblies, components, and loads for purposes of weight, balance, loading, and operational functions of ships, aircraft, space vehicles, missiles, research instrumentation, and commercial and industrial products and systems: Studies weight factors involved in new designs or modifications, utilizing computer techniques for analysis and simulation. Analyzes data and prepares reports of weight distribution estimates for use in design studies. Confers with design engineering personnel in such departments as preliminary design, structures, aerodynamics, and sub-systems to ensure coordination of weight, balance, and load specifications with other phases of product development. Weighs parts, assemblies, or completed product, estimates weight of parts from engineering drawings, and calculates weight distribution to determine balance. Prepares reports or graphic data for designers when weight and balance requires engineering changes. Prepares technical reports on mass moments of inertia, static and dynamic balance, dead weight distributions, cargo and fuselage compartments, and fuel center of gravity travel. May prepare cargo and equipment loading sequences to maintain balance of aircraft or space vehicle within specified load limits. May analyze various systems, structures, and support equipment designs to obtain information on most efficient compromise between weight, operations, and cost. May conduct research and analysis to develop new techniques for weights estimating criteria.
GOE: 07.02.03 STRENGTH: M GED: R5 M5 L5 SVP: 7 DLU: 77

021 OCCUPATIONS IN ASTRONOMY

This group includes occupations concerned with the investigation of celestial phenomena to increase basic scientific knowledge, or for practical application in such fields as navigation and guidance. Also includes occupations concerned with the visual and instrumental observation of astronomical phenomena and the recording and evaluation of data.

021.067-010 ASTRONOMER (profess. & kin.)
Observes and interprets celestial phenomena and relates research to basic scientific knowledge or to practical problems, such as navigation: Studies celestial phenomena by means of optical, radio, or other telescopes, equipped with such devices as cameras, spectrometers, radiometers, photometers, and micrometers, which may either be on ground or carried above atmosphere with balloons, rockets, satellites, or space probes. Interprets information obtained in terms of basic physical laws. Determines sizes, shapes, brightness, spectra, and motions, and computes positions of sun, moon, planets, stars, nebulae, and galaxies. Calculates orbits of various celestial bodies. Determines exact time by celestial observations, and conducts research into relationships between time and space. Develops mathematical tables giving positions of sun, moon, planets, and stars at given times for use by air and sea navigators. Conducts research on statistical theory of motions of celestial bodies. Analyzes wave lengths of radiation from celestial bodies, as observed in all ranges of spectrum. Studies history, s ture, extent, and evolution of stars, stellar systems, and universe. May d new and improved optical, mechanical, and electronics instruments for a nomical research. May specialize in either observational or theoretical as of stellar astronomy, stellar astrophysics, interstellar medium, galactic stru extragalactic astronomy, or cosmology.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

022 OCCUPATIONS IN CHEMISTRY

This group includes occupations concerned with research and develop in the chemical and physical properties and compositional changes of stances. Specialization generally occurs in one or more branches of chem such as organic chemistry, inorganic chemistry, physical chemistry and an ical chemistry. Chemistry specializations within the field of environmental trol are also included here. Occupations concerned with biochemistry are f in Group 041.

022.061-010 CHEMIST (profess. & kin.)
Conducts research, analysis, synthesis, and experimentation on substa for such purposes as product and process development and application, titative and qualitative analysis, and improvement of analytical methodol Devises new equipment, and develops formulas, processes, and methods f lution of technical problems. Analyzes organic and inorganic compounds t termine chemical and physical properties, utilizing such techniques as ch tography, spectroscopy, and spectrophotometry. Induces changes in compo of substances by introduction of heat, light, energy, and chemical cata Conducts research on manufactured products to develop and improve pro Conducts research into composition, structure, properties, relationships, an actions of matter. Confers with scientists and engineers regarding research prepares technical papers and reports. Prepares standards and specification processes, facilities, products, and tests. May be designated according to c istry specialty as CHEMIST, ANALYTICAL (profess. & kin.); CHEMIST ORGANIC (profess. & kin.); CHEMIST, ORGANIC (profess. & kin.); CH IST, PHYSICAL (profess. & kin.).
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 81

022.061-014 CHEMIST, FOOD (profess. & kin.)
Conducts research and analysis concerning chemistry of foods to develo improve foods and beverages: Experiments with natural and synthetic ma or byproducts to develop new foods, additives, preservatives, anti-adulte agents, and related products. Studies effects of various methods of proce preservation, and packaging on composition and properties of foods, su color, texture, aroma, taste, shelf life, and nutritive content. Tests food and erage samples, such as starch, sugar, cereals, beer, canned and dehydrated products, meats, vegetables, dairy foods, and other products to ensure co ance with food laws, and standards of quality and purity. May perform, pervise workers performing, quality control tests in food processing, ca freezing, brewing or distilling. May specialize in particular food or process
GOE: 02.02.04 STRENGTH: L GED: R6 M5 L5 SVP: 7 DLU: 77

022.081-010 TOXICOLOGIST (pharmaceut.)
Conducts research on toxic effects of cosmetic products and ingredie laboratory animals for manufacturer of cosmetics: Applies cosmetic ingr or cosmetic being developed to exposed shaved skin area of test anima observes and examines skin periodically for possible development of abno ties, inflammation, or irritation. Injects ingredient into test animal, using dermic needle and syringe, and periodically observes animal for signs o icity. Injects antidotes to determine which antidote best neutralizes toxic e Tests and analyzes blood samples for presence of toxic conditions, using n scope and laboratory test equipment. Dissects dead animals, using surgic struments, and examines organs to determine effects of cosmetic ingre being tested. Prepares formal reports of test results.
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

022.137-010 LABORATORY SUPERVISOR (profess. & kin.)
Supervises and coordinates activities of personnel engaged in perfo chemical and physical tests required for quality control of processes and ucts: Directs and advises personnel in special test procedures to analyze co nents and physical properties of materials. Compiles and analyzes test inf tion to determine operating efficiency of process or equipment and to dia malfunctions. Confers with scientists or engineers to conduct analyses, int test results, or develop nonstandard tests. Performs other duties as des under SUPERVISOR (any industry) Master Title. May adjust formula processes based on test results. May test and analyze sample products. Ma pare test solutions, compounds, and reagents for use by laboratory pers in conducting tests. May conduct research to develop custom products a vestigate complaints on existing products.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 86

022.161-010 CHEMICAL LABORATORY CHIEF (profess. & kin.) nate titles: chief chemist; director, chemical laboratory
Plans and directs activities of chemical laboratory in industrial, research, ernmental, or other organization: Plans, coordinates, and directs progra research, product development, improvement of manufacturing processes; analysis and testing of substances to support criminal investigations, to toxins, or to verify composition of manufactured and agricultural product

natural resources, such as air, soil, and water. Coordinates research and analysis activities according to applicable government regulations, manufacturing processes, or other considerations, and approves modification of formulas, standards, specifications, and processes. Reviews research, testing, quality control, and other operational reports to ensure that quality standards, efficiency, and schedules are met. Interprets results of laboratory activities to laboratory personnel, management, and professional and technical societies, and prepares reports and technical papers. May prepare and administer budgets. May advise and assist in obtaining patents for products, processes, or equipment.
GOE: 02.01.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 78

022.161-014 COLORIST (profess. & kin.) alternate titles: color maker; color matcher

Develops color formulas for printing textile and plastic materials and compares customer's sample with standard color card, or blends pigments into vinyl solution and compares results with sample to determine formula required to duplicate colors. Selects dyes according to properties desired by customer. Records color formula and issues formula and mixing procedure to SUPERVISOR, COLOR-PASTE MIXING (textile) for assignment to appropriate workers. Prepares color sequence chart to guide CLOTH PRINTER (any industry) in setting up printing machine. Compares printed patch with customer's sample to verify color shade and position of design. Files folder containing color patch and formula for each design for use as printing standard. Coordinates color shop activities with printing department production schedule. May inspect printed material to ensure adherence to customer and plant specifications. May mix colors. May inventory and requisition supplies.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

022.161-018 PERFUMER (chemical)

Evaluates odors of aromatic chemicals to set production standards and ensure adherence by workers engaged in compounding and finishing operations: Directs workers engaged in preparation of work orders for compounding department and reviews batch sheets prepared for distillation department to ensure compliance with formulas devised in perfume laboratory. Visits compounding and distillation areas and determines, by smelling, odor qualities of prepared materials. Approves batches for finishing, from knowledge of odor characteristics and odor blends conforming with customer or laboratory standards. Resmells sample in air-filtered room, using blotter strips dipped in aromatic chemicals to evaluate fragrances for specific characteristics, such as odor, body, harmony, strength, and permanence. Compares odor and color of current sample with samples of previous batches. Rejects batches not meeting criteria, and notifies distillation personnel to redistill product. May devise production formulas and be designated Creative Perfumer (chemical).
GOE: 02.01.02 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

022.261-010 CHEMICAL LABORATORY TECHNICIAN (profess. & kin.)

Conducts chemical and physical laboratory tests of solid materials, liquids, and gases, and analyzes test data for variety of purposes, such as research, product development, quality control, criminal investigation, and establishing standards, involving experimental, theoretical, or practical application of chemistry and related sciences: Sets up laboratory equipment and instrumentation required for tests, research, or process control. Tests and analyzes products, such as food, drugs, fertilizers, plastics, paints, detergents, paper, petroleum, and cement, to determine strength, stability, purity, chemical content, and other characteristics. Tests and analyzes materials and substances, such as ores, minerals, gases, soil, water, and pollutants. Documents results of tests and analyses. May prepare chemical solutions for use in processing materials, following standardized formulas or experimental procedures. May test and analyze radioactive and biological materials, applying knowledge of radiochemical procedures, emission spectrometry, and related techniques.
GOE: 02.04.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 88

022.261-014 MALT-SPECIFICATIONS-CONTROL ASSISTANT (beverage)

Keeps perpetual inventory of malt and barley in storage elevators and determines formulas for blending malt: Compiles continuous records of malt and barley supplies by location, amount, physical characteristics, and chemical analysis. Writes orders to malt house to produce and blend standard malt types. Notifies purchasing department of barley supplies in storage. Analyzes physical and chemical test results to classify incoming barley shipments. Selects tanks and issues orders for storing barley and malt in elevators. Analyzes customer orders to determine if special malt blends are needed. Determines blend formulas, using established chemical and mathematical procedures. Mixes sample of blend by hand, orders chemical and physical testing by laboratory, and compares results with specifications. Sends formula and sample to malt elevators and customers.
GOE: 05.02.03 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 77

022.261-018 CHEMIST, INSTRUMENTATION (profess. & kin.)

Conducts chemical analyses of wastewater discharges of industrial users of municipal wastewater treatment plant to determine industrial waste surcharge assessments and to ensure that users meet pollution control requirements: Conducts chemical analyses of samples, using special instrumentation, such as gas chromatograph with electron capture, flame ionization, and thermal conductivity detectors, ultraviolet-visible recording spectrophotometer with photometry attachments, and infrared spectrophotometer. Compares findings with industry declared data and legal requirements and notes variations to be used in determining industrial waste surcharge assessments and to regulate industrial waste discharges. Develops new procedures in use of equipment and procedures for analyzing samples. Directs subordinate laboratory personnel in routine tests.
GOE: 02.01.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 87

022.261-022 CHEMIST, WASTEWATER-TREATMENT PLANT (profess. & kin.)

Analyzes samples of streams, raw and treated wastewater, sludge, and other byproducts of wastewater treatment process to determine efficiency of plant processes and to ensure that plant effluent meets water pollution control requirements, using standard laboratory equipment: Conducts tests for settleable solids, suspended solids, total solids, volatile solids, volatile acids, alkalinity, pH, dissolved oxygen demand, turbidity, and other substances. Initiates changes in laboratory procedures and equipment in order to increase efficiency of laboratory. Directs laboratory personnel in prescribed laboratory techniques and performance of routine tests.
GOE: 02.04.02 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 87

022.281-010 ASSAYER (profess. & kin.)

Tests ores and minerals and analyzes results to determine value and properties of components, using spectrographic analysis, chemical solutions, and chemical or laboratory equipment, such as furnaces, beakers, graduates, pipettes, and crucibles: Separates metals or other components from dross materials by solution, flotation, or other liquid processes, or by dry methods, such as application of heat to form slags of lead, borax, and other impurities. Weighs residues on balance scale to determine proportion of pure gold, silver, platinum, or other metals or components. May specialize in testing and analyzing precious metals and be designated Gold-And-Silver Assayer (profess. & kin.).
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

022.281-014 CHEMIST, WATER PURIFICATION (waterworks)

Analyzes water in purification plant to control chemical processes which soften it or make it suitable for drinking: Analyzes samples of filtered water to ensure that quantities of solids left in suspension are below prescribed limits. Determines amounts of liquid chlorine to be used in chlorinators to destroy microbes and other harmful organisms, basing amounts on findings of MICROBIOLOGIST (profess. & kin.). Determines kinds and amounts of chemicals to be used in removing minerals, acids, salts, and other inorganic compounds from water to soften it. Tests samples extracted from various points in distribution system, such as mains, tanks, pumps, and outlets, to discover possible sources of water contamination.
GOE: 02.04.02 STRENGTH: L GED: R6 M6 L6 SVP: 7 DLU: 77

022.281-018 LABORATORY TESTER (plastic-synth.)

Examines, measures, photographs, and tests synthetic fiber samples to facilitate quality control of forming, treating, and texturing processes, performing any combination of following tasks: Dips several twisted threads in melted wax and directs stream of cold water over threads to congeal wax. Slices threads crosswise, using microtome. Dissolves wax, using solvent, and positions thread sample on microscope slide. Inserts slide in microscope and photographs sample, using standard microphotographic equipment and techniques. Develops, prints, and labels photographs. Analyzes photographs to determine whether structure and other characteristics of thread meet plant standards. Determines tensile strength of thread samples, using device that draws material between two jaws until breakage occurs. Measures cross-sectional area of thread samples, using planimeter. Immerses samples in water, corrosives, or cleaning agents to detect shrinkage or damage. Places thread samples in dye bath to evaluate permeability of dye and exposes samples to controlled light source to ascertain fade resistance. Prepares and submits reports of findings to production personnel to facilitate quality control of product.
GOE: 02.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

022.381-010 YEAST-CULTURE DEVELOPER (beverage)

Selects and cultivates yeast cells to develop pure yeast culture for brewing beer and malt liquors: Samples beer in fermenting stages to select specimens containing yeast cells having specific reproduction characteristics. Prepares cover glasses and slides with smears of yeast preparation taken from beer samples. Examines slides under microscope to isolate specific cells and record position of cells. Incubates slides to allow colonies of cells to form. Inoculates cells with hopped wort, using sterile needle to transfer cells from slides to flasks containing wort. Cultivates cells in flasks by incubation and propagates single cell cultures by transferring cells to additional flasks. Siphons developing yeast culture from flasks to tanks and pumps yeast culture from tanks to sterile barrels. Seals barrels with sterile bung and packs sealed barrels in dry ice to prevent yeast degeneration. Cleans and sterilizes equipment.
GOE: 02.04.02 STRENGTH: M GED: R4 M2 L4 SVP: 5 DLU: 77

023 OCCUPATIONS IN PHYSICS

This group includes occupations concerned with the investigation of the laws of matter and energy and their application to problems in such fields as science, engineering, medicine, environment, and production.

023.061-010 ELECTRO-OPTICAL ENGINEER (profess. & kin.)

Conducts research and plans development and design of gas and solid state lasers, masers, infrared, and other light emitting and light sensitive devices: De-

signs electronic circuitry and optical components with specific characteristics to fit within specified mechanical limits and to perform according to specifications. Designs suitable mounts for optics and power supply systems. Incorporates methods for maintenance and repair of components and designs, and develops test instrumentation and test procedures. Confers with engineering and technical personnel regarding fabrication and testing of prototype systems, and modifies design as required. May conduct application analysis to determine commercial, industrial, scientific, medical, military, or other use for electro-optical devices. May assist with development of manufacturing, assembly, and fabrication processes.
GOE: 05.01.07 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

023.061-014 PHYSICIST (profess. & kin.)
Conducts research into phases of physical phenomena, develops theories and laws on basis of observation and experiments, and devises methods to apply laws and theories of physics to industry, medicine, and other fields: Performs experiments with masers, lasers, cyclotrons, betatrons, telescopes, mass spectrometers, electron microscopes, and other equipment to observe structure and properties of matter, transformation and propagation of energy, relationships between matter and energy, and other physical phenomena. Describes and expresses observations and conclusions in mathematical terms. Devises procedures for physical testing of materials. Conducts instrumental analyses to determine physical properties of materials. May specialize in one or more branches of physics and be designated Physicist, Acoustics (profess. & kin.); Physicist, Astrophysics (profess. & kin.); Physicist, Atomic, Electronic And Molecular (profess. & kin.); Physicist, Cryogenics (profess. & kin.); Physicist, Electricity And Magnetism (profess. & kin.); Physicist, Fluids (profess. & kin.). May be designated: Physicist, Light And Optics (profess. & kin.); Physicist, Nuclear (profess. & kin.); Physicist, Plasma (profess. & kin.); Physicist, Solid Earth (profess. & kin.); Physicist, Solid State (profess. & kin.); Physicist, Thermodynamics (profess. & kin.).
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

023.067-010 PHYSICIST, THEORETICAL (profess. & kin.)
Designs, conceives, and interprets experiments in physics and formulates theories consistent with data obtained: Analyzes results of experiments designed to detect and measure previously unobserved physical phenomena. Applies mathematical methods to solution of physical problems.
GOE: 02.01.01 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

024 OCCUPATIONS IN GEOLOGY

This group includes occupations concerned with the investigation of the composition, structure, and physical and biological history of the earth's crust and the application of this knowledge in such fields as archeology, mining, construction, and environmental impact. Typical specializations are ecomonic geology, historical geology, mineralogy, mining geology, paleontology, petroleum geology, petrology, physiography, structural geology, subsurface geology.

024.061-010 CRYSTALLOGRAPHER (clock & watch)
Conducts studies of nonmetallic minerals used in horological industry. Performs experimental research concerned with projects, such as development of diamond tools and dies, fabrication of jeweled bearings, and development of grinding *laps III* and wheels. Tests industrial diamonds and abrasives to determine grain size, pattern, crystalline orientation, goniometric features and other factors in order to appraise their suitability for use, using optical, x-ray, and other precision instruments. Repairs diamond and abrasive tools. Develops improved methods of fabricating silicon-carbide compounds into bearings and investigates substitution of other materials.
GOE: 02.01.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-014 GEODESIST (profess. & kin.)
Studies size, shape, and gravitational field of earth: Employs surveying and geodetic instruments, such as transits, theodolites, and other engineering instruments, in setting up and improving network of triangulation over earth's surface, in order to provide fixed points for use in making maps. Establishes bench marks (known points of elevation). Performs gravimetric surveying to determine variations in earth's gravitational field, and provides data used in determination of weight, size, and mass of earth.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-018 GEOLOGIST (profess. & kin.)
Studies composition, structure, and history of earth's crust: Examines rocks, minerals, and fossil remains to identify and determine sequence of processes affecting development of earth. Applies knowledge of chemistry, physics, biology, and mathematics to explain these phenomena and to help locate mineral, geothermal, and petroleum deposits and underground water resources. Studies ocean bottom. Applies geological knowledge to engineering problems encountered in construction projects, such as dams, tunnels, and large buildings. Studies fossil plants and animals to determine their evolutionary sequence and age. Prepares geologic reports and maps, interprets research data, and recommends further study or action. May specialize in area of study and be designated Geomorphologist (profess. & kin.); Oceanographer, Geological (profess. & kin.); Photogeologist (profess. & kin.). May conduct or participate in environmental studies and prepare environmental reports. Workers applying principles of rock and soil mechanics for engineering projects may be designated Geological Engineer (profes. & kin.). Workers applying all branches of geologic knowledge to conditions that affect planning, design, construction, operat
and safety to engineering projects may be designated Engineering Geolog
(profess. & kin.).
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-022 GEOLOGIST, PETROLEUM (petrol. & gas)
Explores and charts stratigraphic arrangement and structure of earth to loca
gas and oil deposits: Studies well logs, analyzes cores and cuttings from w
drillings, and interprets data obtained by electrical or radioactive well loggi
and other subsurface surveys to identify earth strata. Examines aerial pho
graphs, evaluates results of geophysical prospecting, and prepares surface a
subsurface maps and diagrams depicting stratigraphic arrangement and co
position of earth and probable deposits of gas and oil. Recommends acquisitio
retention, or release of property leases or contracts. Estimates oil reserves
proven or prospective fields, and consults with PETROLEUM ENGINEE
(petrol. & gas) concerning drilling and production methods. May direct drilli
of shallow exploratory wells.
GOE: 02.01.02 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

024.061-026 GEOPHYSICAL PROSPECTOR (petrol. & gas)
Studies structure of subsurface rock formations to locate petroleum deposi
Conducts research, using geophysical instruments such as seismograph, gravi
eter, torsion balance, and magnetometer, pendulum devices, and electrical-res
tivity apparatus to measure characteristics of earth. Computes variations
physical forces existing at different locations and interprets data to reveal su
surface structures likely to contain petroleum deposits. Prepares charts, profil
or subsurface contour maps, and determines desirable locations for drilling o
erations. Directs field crews drilling boreholes and collecting samples of ro
and soil for chemical analysis of hydrocarbon content. May specialize in pa
ticular instrumentation and be designated Electrical Prospector (petrol. & ga
Gravity Prospector (petrol. & gas); Magnetic Prospector (petrol. & gas); Se
mic Prospector (petrol. & gas).
GOE: 02.01.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-030 GEOPHYSICIST (profess. & kin.)
Studies physical aspects of earth, including its atmosphere and hydrospher
Investigates and measures seismic, gravitational, electrical, thermal, and ma
netic forces affecting earth, utilizing principles of physics, mathematics, a
chemistry. Analyzes data obtained to compute shape of earth, estimate co
position and structure of earth's interior, determine flow pattern of ocean tid
and currents, study physical properties of atmosphere, and help locate petr
leum and mineral deposits. Investigates origin and activity of glaciers, volc
noes, and earthquakes. Compiles data to prepare navigational charts and map
predict atmospheric conditions, prepare environmental reports, and establi
water supply and flood-control programs. May study specific aspect of ge
physics and be designated Geomagnetician (profess. & kin.); Glaciologist (pr
fess. & kin.); Oceanographer, Physical (profess. & kin.); Tectonophysicist (pr
fess. & kin.); Volcanologist (profess. & kin.).
GOE: 02.01.01 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 77

024.061-034 HYDROLOGIST (profess. & kin.)
Studies distribution, disposition, and development of waters of land areas, i
cluding form and intensity of precipitation, and modes of return to ocean a
atmosphere: Maps and charts water flow and disposition of sediment. Measur
changes in water volume due to evaporation and melting of snow. Studi
storm occurrences and nature and movement of glaciers, and determines ra
of ground absorption and ultimate disposition of water. Evaluates data obtaine
in reference to such problems as flood and drought forecasting, soil and wat
conservation programs, and planning water supply, water power, flood contro
drainage, irrigation, crop production, and inland navigation projects.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-038 MINERALOGIST (profess. & kin.)
Examines, analyzes, and classifies minerals, gems, and precious stones: Is
lates specimen from ore, rocks, or matrices. Makes microscopic examination
determine shape, surface markings, and other physical characteristics. Perform
physical and chemical tests and makes x-ray examinations to determine com
position of specimen and type of crystalline structure. Identifies and classifi
samples. Develops data and theories on mode of origin, occurrence, and po
sible uses of minerals.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-042 PALEONTOLOGIST (profess. & kin.)
Studies fossilized remains of plants and animals found in geological form
tions to trace evolution and development of past life and identify geologic
formations according to nature and chronology: Recovers and assembles fo
silized specimens, notes their positions, and classifies them according to the
botanical or zoological family and probable age. Prepares treatises on finding
for furtherance of scientific study, or as in aid to location of natural resource
such as petroleum-bearing formations. May organize scientific expeditions an
supervise removal of fossils from deposits and matrix rock formations. Ma
specialize in study of plant fossils and be designated Paleobotanist (profess.
kin.). May specialize in study of fossilized micro-organisms and be designate
Micropaleontologist (profess. & kin.).
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-046 PETROLOGIST (profess. & kin.)
Investigates composition, structure, and history of rock masses formin
earth's crust. Applies findings to such fields of investigation as causes of fo

mations, breaking down and weathering, chemical composition and forms of deposition of sedimentary rocks, methods of eruption, and origin and causes of metamorphosis.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

024.061-050 SEISMOLOGIST (profess. & kin.)

Studies and interprets seismic data to locate earthquakes and earthquake faults: Reviews, analyzes, and interprets data from seismographs and geophysical instruments. Establishes existence and activity of faults, and direction, motion, and stress of earth movements before, during, and after earthquakes. Conducts research on seismic forces affecting deformative movements of earth. May issue maps or reports indicating areas of seismic risk to existing or proposed construction or development.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

024.061-054 STRATIGRAPHER (profess. & kin.)

Studies relative position and order of succession of deposits containing or separating archaeological fossil or plant material. Studies relation of life of past ages, evolutionary changes as recorded by fossil animals and plants, and successive changes in distribution of land and sea as interpreted from character of fossil content of sedimentary rocks.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

024.161-010 ENGINEER, SOILS (profess. & kin.)

Studies and analyzes surface and subsurface soils to determine characteristics for construction, development, or land planning: Inspects proposed construction site, and sets up test equipment and drilling machinery to obtain data and soil and rock samples. Analyzes data and soil samples through field and laboratory analysis, to determine type, classification, characteristics, and stability of soil. Computes bearing weights, prepares maps, charts, and reports of test results. May make recommendations regarding foundation design, slope angles, grading or building heights. May participate in environmental studies and prepare environmental impact reports.
GOE: 05.01.08 STRENGTH: L GED: R6 M5 L6 SVP: 7 DLU: 77

024.167-010 GEOPHYSICAL-LABORATORY CHIEF (profess. & kin.) alternate titles: director, geophysical laboratory; engineer, geophysical laboratory; research engineer, geophysical laboratory; superintendent, geophysical laboratory

Plans, directs, and coordinates research activities of geophysical laboratory to develop new or improved instruments and methods for measuring physical characteristics of earth's crust which provide data for petroleum or mineral exploration: Consults with management and field and laboratory technical personnel to determine specific phases of geophysical prospecting in which improved processes might be evolved by study and experimentation. Plans research programs and initiates and directs experiments to improve prospecting procedures, explore possibilities of new theories, and develop improved or new instruments. Directs and coordinates activities concerned with designing, building, and field testing experimental instruments and maintenance and repair of laboratory and prospecting instruments.
GOE: 02.04.01 STRENGTH: L GED: R6 M6 L6 SVP: 9 DLU: 77

024.267-010 GEOLOGICAL AIDE (petrol. & gas)

Examines and compiles geological information to provide technical data to GEOLOGIST, PETROLEUM (petrol. & gas) 024.061-022, using surface and subsurface maps, oil and gas well activity reports, and sand and core analysis studies: Studies geological reports to extract well data and posts data to maps and logs. Draws subsurface formation contours on charts to lay out and prepare geological cross section charts. Compiles information regarding well tests, completions, and formation tops to prepare oil or gas well records. Records net sand and sand percentage counts and calculates isopachous values to compile sand analysis data. Studies directional logs and surveys to calculate and plot formation tops. Reads well activity reports and records key well locations in drilling activity book. Assembles and distributes prepared charts, maps, and reports to geologist requesting material. Maintains file record systems and geological library. Attends SCOUT (petrol. & gas) 010.267-010 meeting to compile information on well activity. Contacts competitors to acquire oil and gas samples from wells. Operates computer terminal for input and retrieval of geological data.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

024.284-010 PROSPECTOR (any industry)

Explores likely regions to discover valuable mineral deposits, using topographical maps, surveys, reports, and knowledge of geology and mineralogy: Examines outcrops, placer, and stream channels for mineral content. Drills, dynamites, or digs trenches or pits along rock formations or creek beds to obtain rock samples. Breaks off samples and tests them for presence of minerals with heat, acid, magnifying glass, or by pulverizing and washing or panning. Assays samples for preliminary quantitative estimate. Collects data on rock formations, using geophysical instruments and devices, such as geiger counters and electronic sounding equipment, and determines feasibility of staking and developing claim. Stakes claim according to federal or state legal requirements. Develops mineral deposits by means of placer or hard rock mining. May sell interests in discovered areas.
GOE: 05.03.04 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 77

024.364-010 PALEONTOLOGICAL HELPER (profess. & kin.)

Prepares, classifies, and sorts rock and fossil specimens: Records receipt of fossil and rock samples from outcroppings, quarries, oil or gas wells, boreholes, or other sources. Cleans, washes, and prepares samples, using probes, brushes or cleaning solutions to remove extraneous matter. Separates rock and fossil specimens and classifies them into general categories of fossilization. Compiles background data of rock or fossil. Sacks and labels specimens. Mounts specimen for study or experimentation.
GOE: 02.04.01 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

024.381-010 LABORATORY ASSISTANT (petrol. & gas) alternate titles: analyst, geochemical prospecting; core analyst; laboratory tester

Tests sand, shale, and other earth materials to determine petroleum and mineral content and physical characteristics: Performs routine chemical or physical tests of earth samples in field or laboratory to determine content of hydrocarbon or other minerals indicating presence of petroleum and mineral deposits. Tests core samples brought up during well drilling to determine permeability and porosity of sample, fluid content of sand and shale, salinity of drilling mud, and other conditions affecting oil well drilling operations.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L3 SVP: 5 DLU: 77

025 OCCUPATIONS IN METEOROLOGY

This group includes occupations concerned with the investigation of atmospheric phenomena with specializations, such as synoptic meterology, climatology, dynamic meterology, physical meterology, radar and radio meterology, and hydrometerology.

025.062-010 METEOROLOGIST (profess. & kin.) alternate titles: weather forecaster

Analyzes and interprets meteorological data gathered by surface and upper-air stations, satellites, and radar to prepare reports and forecasts for public and other users: Studies and interprets synoptic reports, maps, photographs, and prognostic charts to predict long and short range weather conditions. Operates computer graphic equipment to produce weather reports and maps for analysis, distribution to users, or for use in televised weather broadcast. Issues hurricane and other severe weather warnings. May broadcast weather forecast over television or radio. May prepare special forecasts and briefings for particular audiences, such as those involved in air and sea transportation, agriculture, fire prevention, air-pollution control, and school groups. May direct forecasting services at weather station, or at radio or television broadcasting facility. May conduct basic or applied research in meteorology. May establish and staff weather observation stations.
GOE: 02.01.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 89

025.264-010 HYDROGRAPHER (waterworks)

Analyzes hydrographic data to determine trends in movement and utilization of water: Reads meters and gauges to measure waterflow and presure in streams, conduits, and pipelines, and records data. Measures water level in lakes, reservoirs, and tanks. Calculates seepage and evaporation rates for dams and reservoirs. Measures depth of water in wells and test holes to determine ground water level. Measures snow characteristics to evaluate water yield from snow runoff. Prepares graphs and charts to illustrate water patterns. Positions sluice gates to direct water onto spreading grounds. Installs, calibrates, and maintains metering instruments. Recommends locations for metering stations and instrument placement.
GOE: 02.04.01 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 77

025.267-010 OCEANOGRAPHER, ASSISTANT (military ser.)

Analyzes and records oceanographic and meteorological data to forecast changes in weather or sea condition: Collects weather and oceanographic data, using meteorological and oceanographic equipment and visual observation. Sketches surface weather charts, upper air charts, sea condition charts, and other charts and maps to indicate weather and sea conditions. Prepares and forecasts warnings of severe and hazardous weather and sea conditions and prepares briefines of current and predicted environmental conditions and their effect on military operations. Performs preventative maintenance on meteorological and oceanographic equipment.
GOE: 02.04.01 STRENGTH: M GED: R5 M5 L4 SVP: 7 DLU: 77

025.267-014 WEATHER OBSERVER (profess. & kin.) alternate titles: meteorological technician

Observes and records weather conditions for use in forecasting: Periodically observes general weather, sky and visibility conditions, and reads weather instruments including thermometers, barometers, and hygrometers to ascertain elements, such as temperature, barometric pressure, humidity, wind velocity, and precipitation. Transmits and receives weather data from other stations over teletype machine. May collect upper-air data on temperature, humidity, and winds, using weather balloon and radiosonde equipment. May conduct pilot briefings.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

029 OCCUPATIONS IN MATHEMATICS AND PHYSICAL SCIENCES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with mathematics and the physical sciences.

029.067-010 GEOGRAPHER (profess. & kin.)
Studies nature and use of areas of earth's surface, relating and interpreting interactions of physical and cultural phenomena: Conducts research on physical and climatic aspects of area or region, making direct observation of landforms, climates, soils, plants, and animals within area under study and incorporating available knowledge from related scientific fields, such as physics, geology, oceanography, meteorology, and biology. Studies human activities within given area, such as ethnic distribution, economic activity, and political organization. Acts as adviser or consultant to governments and international organizations on subjects, such as economic exploitation of regions and determination of ethnic and natural boundaries between nations or administrative areas. May use surveying equipment or meteorological instruments. May construct and interpret maps, graphs, and diagrams. May specialize in particular branch of cultural geography, such as economic, political, urban, social, or historical geography.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 7 DLU: 77

029.067-014 GEOGRAPHER, PHYSICAL (profess. & kin.)
Studies origins, nature, and distribution of features of earth's surface, including landforms, climates, soils, plants, and animals: Makes surveys of physical characteristics of specific regions, conducting studies of features, such as elevations, drainage, geological formations, climate, vegetation, and access to other regions. May conduct environmental studies and prepare environmental impact reports.
GOE: 02.01.01 STRENGTH: L GED: R6 M6 L6 SVP: 7 DLU: 77

029.081-010 ENVIRONMENTAL ANALYST (profess. & kin.) alternate titles: environmental scientist
Conducts research studies to develop theories or methods of abating or controlling sources of environmental pollutants, utilizing knowledge of principles and concepts of various scientific and engineering disciplines: Determines data collection methods to be employed in research projects and surveys. Plans and develops research models, using knowledge of mathematical, statistical, and physical science concepts and approaches. Identifies and analyzes sources of pollution to determine their effects. Collects and synthesizes data derived from pollution emission measurements, atmospheric monitoring, meteorological and minerological information, and soil or water samples. Prepares graphs, charts, and statistical models from synthesized data, using knowledge of mathematical, statistical, and engineering analysis techniques. Analyzes data to assess pollution problems, establish standards, and develop approaches for control of pollution. May be designated according to aspect of environment in which engaged as Air Pollution Analyst (profess. & kin.); Soils Analyst (profess. & kin.); Water Quality Analyst (profess. & kin.).
GOE: 02.01.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

029.081-014 MATERIALS SCIENTIST (profess. & kin.)
Conducts scientific studies for understanding, characterizing and developing materials leading to potential uses for the benefit of science and emerging technologies: Conducts programs for studying structures and properties of various materials, such as metals, alloys, ceramics, semiconductors and polymers to obtain research data. Plans experimental laboratory production of materials having special characteristics to confirm feasibility of processes and techniques for potential users. Prepares reports of materials studies for information of other scientists and requestors. May guide technical staff engaged in developing materials for specific use in projected product or device.
GOE: 02.01.02 STRENGTH: S GED: R6 M6 L5 SVP: 7 DLU: 77

029.167-010 AERIAL-PHOTOGRAPH INTERPRETER (government ser.)
Analyzes aerial photographs to detect significant military, industrial, resource, or topographical data: Studies photographs to locate enemy positions, camouflaged military installations and equipment, roads, industrial centers, rivers, wooded areas, and to determine nature of terrain. Interprets photographs to evaluate enemy strength and to predict military intentions. May draw maps for use of field commanders in planning deployment of troops. May interpret photographs for timber evaluation, water shed management, construction, or mining. May request enlargement of photograph for more detailed analysis. May use computers and data banks to store, retrieve, and compare information.
GOE: 02.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

029.167-014 PROJECT MANAGER, ENVIRONMENTAL RESEARCH (profess. & kin.)
Plans, directs, and coordinates activities of staff involved in developing procedures, equipment, and techniques to solve pollution problems, using scientific research methods: Schedules and assigns duties to staff research scientists and engineers based on evaluation of their knowledge of specific disciplines. Confers with project scientists and research engineers to formulate research plan, coordinate project activities, and establish reporting procedures. Prepares environmental research project feasibility and progress reports. Coordinates activities of research personnel conducting successive phases of problem analysis, solution proposals, and testing. Reviews technical aspects of project to assist staff and assess productivity of lines of research. Reviews project operations to ensure coordination of efforts and timely submission of reports. Analyzes reports to evaluate program effectiveness and budgetary needs. Approves expenditures necessary for completion of project. Coordinates planning, testing, and operating phases to complete project. Confers with local regulatory agencies to discover local environmental quality standards, industrial practices, and new developments in pollution abatement. May provide technical assistance to agencies conducting related environmental studies.
GOE: 02.01.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

029.261-010 LABORATORY TESTER (any industry)
Performs laboratory tests according to prescribed standards to determ
chemical and physical characteristics or composition of solid, liquid, or gase
materials for such purposes as quality control, process control, or product
velopment: Sets up, adjusts and operates laboratory equipment and instrume
such as microscopes, centrifuge, agitators, viscosimeter, chemical bala
scales, spectrophotometer, gas chromatograph, colorimeter, and other eq
ment. Tests materials used as ingredients in adhesives, cement, propellants,
bricants, refractories, synthetic rubber, plastics, paint, paper, cloth, and o
products for such qualities as purity, stability, viscosity, density, absorpt
burning rate, and melting or flash point. Tests solutions used in processes, s
as anodizing, waterproofing, cleaning, bleaching, and pickling for chemical c
centration, specific gravity, or other characteristics. Tests materials for prese
and content of elements or substances, such as hydrocarbons, manganese, na
ral grease, tungsten, sulfur, cyanide, ash, dust, or impurities. Tests samples
manufactured products to verify conformity to specifications. Records test
sults on standardized forms and writes test reports describing procedures us
Cleans and sterilizes laboratory equipment. May prepare graphs and cha
May prepare chemical solutions according to standard formulas. May
chemicals or raw materials to process solutions or product batches to co
or establish formulation required to meet specifications. May calibrate l
oratory instruments. May be designated according to product or material test
For testing of food products see FOOD TESTER (any industry) 029.361-014
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 86

029.261-014 POLLUTION-CONTROL TECHNICIAN (profess. & k
alternate titles: environmental technician
Conducts tests and field investigations to obtain data for use by envir
mental, engineering, and scientific personnel in determining sources and me
ods of controlling pollutants in air, water, and soil, utilizing knowledge of ag
culture, chemistry, meteorology, and engineering principles and applied te
nologies: Conducts chemical and physical laboratory and field tests accord
to prescribed standards to determine characteristics or composition of solid, l
uid, or gaseous materials and substances, using pH meter, chemica
autoclaves, centrifuge, spectrophotometer, microscope, analytical instrumen
tion, and chemical laboratory equipment. Collects samples of gases fr
smokestacks, and collects other air samples and meteorological data to as
in evaluation of atmospheric pollutants. Collects water samples from strea
and lakes, or raw, semiprocessed or processed water, industrial waste water,
water from other sources to assess pollution problem. Collects soil, silt, or m
to determine chemical composition and nature of pollutants. Prepares sam
for testing, records data, and prepares summaries and charts for review. S
monitoring equipment to provide flow of information. Installs, operates, a
performs routine maintenance on gas and fluid flow systems, chemical reacti
systems, mechanical equipment, and other test instrumentation. May oper
fixed or mobile monitoring or data collection station. May conduct ba
teriological or other tests related to research in environmental or pollution co
trol activity. May collect and analyze engine exhaust emissions to determ
type and amount of pollutants and be designated Engine Emission Technic
(profess. & kin.). May specialize in one phase or type of environmental pol
tion or protection and be identified according to specialty.
GOE: 05.03.08 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

029.261-018 TEST-ENGINE OPERATOR (petrol. refin.) alternate titl
research-test-engine operator
Subjects petroleum fuels and lubricants to simulated operating conditions
full-scale test engines to obtain evaluating data: Runs tests with gasoline, dies
aviation, and supercharged research test engines, dynamometers, and other m
chanical testing equipment, varying such factors as speed, temperature, lo
fuel, and bearing, motor, or chassis lubricants as specified. Records horsepow
ratings and other performance data. Tests fuels in standardized knock-rating t
engines to obtain data for determination of octane or cetene values. Adjusts a
makes minor repairs to engines during test runs.
GOE: 05.03.07 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

029.261-022 TESTER (petrol. refin.) alternate titles: crude tester; gas a
alyst; laboratory inspector; laboratory technician; laborato
tester; oil tester
Tests and analyzes samples of crude oil and petroleum products during pro
essing stages, using laboratory apparatus, testing equipment, and followi
standard test procedures to determine physical and chemical properties and e
sure products meet quality control standards. Tests samples of crude and blen
ed oils, gases, asphalts, and pressure distillates to determine characteristic
such as boiling, vapor, freeze, condensation, flash and aniline points, viscosit
specific gravity, penetration, doctor solution, distillation, and corrosion, usi
test and laboratory equipment, such as hydrometers, fractionators, distillati
apparatus, and analytical scales. Analyzes content of products to determi
presence of gases, such as propane, iso-butane, butane, iso-pentane, and ethen
Determines hydrocarbon composition of gasolines, blending stocks and gase
using fractional distillation equipment, gas chromatography, and mass spectron
eter. Operates fractionation column to separate crude oil into oils with differe
boiling points to determine their properties. Analyzes composition of produc
to determine quantitative presence of gum, sulfur, aromatics, olefins, water, a
sediment. Compares color of liquid product with charts to determine processi
factors measurable by color. May test air and water samples to detect industri
pollutants.

GOE: 02.04.01 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

029.261-026 CRIMINALIST (profess. & kin.) alternate titles: crime laboratory analyst; police chemist

Applies scientific principles to analysis, identification, and classification of mechanical devices, chemical and physical substances, materials, liquids, or other physical evidence related to criminology, law enforcement, or investigative work: Searches for, collects, photographs, and preserves evidence. Performs variety of analytical examinations, utilizing chemistry, physics, mechanics, and other sciences. Analyzes items, such as paint, glass, printed matter, paper, ink, fabric, dust, dirt, gases, or other substances, using spectroscope, microscope, infrared and ultraviolet light, microphotography, gas chromatograph, or other recording, measuring, or testing instruments. Identifies hair, skin, tissue, blood, bones, or human organs. Examines and classifies explosives, firearms, bullets, shells, and other weapons. Interprets laboratory findings relative to drugs, poisons, narcotics, alcohol, or other compounds ingested or injected into body. Reconstructs crime scene, preserving marks or impressions made by shoes, tires, or other objects by plaster or moulage casts. Prepares reports or presentations of findings, methods, and techniques used to support conclusions, and prepares results for court or other formal hearings. May testify as expert witness on evidence or crime laboratory techniques. Confers with experts in such specialties as ballistics, fingerprinting, handwriting, documents, electronics, metallurgy, biochemistry, medicine, or others.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 78

029.280-010 PHOTO-OPTICS TECHNICIAN (profess. & kin.)

Sets up and operates photo-optical instrumentation to record and photograph data for scientific and engineering projects: Operates and calibrates photo-optical equipment according to formalized procedures, maintenance manuals, and schematic diagrams. Operates test equipment and performs analysis of data for engineering and scientific personnel. May install and calibrate optical and photographic data collection equipment in missiles, aircraft, weaponry, weather or communication satelites, underwater devices, or other installations. May evaluate adequacy of data obtained to determine need for future changes in instrumentation. May modify existing equipment and participate in planning and testing modified equipment and instrumentation procedures.
GOE: 02.04.01 STRENGTH: L GED: R5 M4 L3 SVP: 6 DLU: 77

029.361-010 BOTTLE-HOUSE QUALITY-CONTROL TECHNICIAN (beverage) alternate titles: quality-control technician

Performs physical measuring and chemical analysis tests of packaged beer and materials in quality control laboratory of brewery bottle house: Selects test samples of crowns, cans, lids, bottles, labels, and cartons from packaging lines following established procedures as to time, place, and sequence. Measures dimensions of crowns, cans, bottles, lids, and labels with scales and micrometers. Conducts abrasion tests on cans, lids, bottles, crowns, and labels with abrasion machine. Measures hardness of crowns, lids, and cans, using hardness tester. Measures bursting strength of bottles, using hydraulic bursting machine. Tests wet and dry tearing strengths of labels and cartons. Weighs filled cans and bottles to measure volume of beer. Records test results and prepares graphs and charts.
GOE: 02.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

029.361-014 FOOD TESTER (any industry)

Performs standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products, or to ensure compliance with company or government quality standards: Conducts standardized tests of food, beverages, additives, and preservatives for flavor, color, texture, nutritional value, or other factors, using incubator, autoclave, ovens, balance scales, refractometer, or other equipment. Tests flavoring and spices for moisture, oil content, coloring, and pungency, using spectrophotometer, stereomicroscope, and ovens. Tests production samples of food for compliance with standards, using spectrometer, pH meter, distillation equipment, balance scales, and other equipment. Refers to tables or computes such factors as moisture, salt content, sediment, or solubility. Smells samples of food for odors or tastes for prescribed flavor. Observes sample smear, sediment disk, or agar sample through microscope to identify bacterial or extraneous matter. Compares test results with standards and records results. Cleans laboratory equipment. May mix ingredients to make reagents. May operate calculating machine to compute percentages of ingredients in finished product. May be identified according to quality or product tested.
GOE: 02.04.02 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 79

029.361-018 LABORATORY ASSISTANT (utilities) alternate titles: laboratory technician

Performs standardized physical and chemical tests on materials and supplies used throughout power system to ensure compliance with specifications: Tests water used in boilers of steam generating plant for alkalinity and silica and phosphate content, using colorimeter and spectrophotometer. Notifies POWER-PLANT OPERATOR (utilities) or AUXILIARY-EQUIPMENT OPERATOR (utilities) of amount of chemical additives required to bring water to prescribed level of purity. Tests coal to determine Btu content by burning coal samples in colorimeter. Tests oil used in circuit breakers for dielectric strength by placing sample of oil in ceramic cup positioned between two electrodes, and measuring current conducted by oil, using ohmmeter. Ascertains heat resisting qualities of insulating paints and varnishes by coating pieces of sheet metal with paint and varnish and subjecting them to high temperatures. May determine viscosity index of lubricating oils, using viscosimeter. May inspect rubber protective equipment, such as aprons, gloves, and blankets for flaws.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 6 DLU: 77

029.381-010 CLOTH TESTER (garment; textile)

Performs standardized chemical and physical tests on samples of cloth to verify adherence to specifications: Compares test results with specimens of cloth or prepared standard cards, graphs, or tables. Examines cloth microscopically or through magnifying glass to determine number of threads per inch, whether woven, warped or knitted, and to identify type of fibers, such as wool, nylon, cotton, polyester, acrylic, or a blend. Tests cloth for weight, fastness of dye, color, type of material, tensile strength, shrinkage, absorbency, or fire retardency, using special testing devices, chemicals, water, heat, drying oven, dehumidifier and scale. May test items, such as buttons, buckles, bindings, webbing, laces, and threads. May mix and apply chemicals to remove stains from garments or fabric soiled in manufacture or transit.
GOE: 02.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

029.381-014 LABORATORY ASSISTANT (textile) alternate titles: laboratory tester

Performs standardized laboratory tests to verify chemical characteristics or composition of textile fibers, yarns, and products, and materials used in processing textiles: Tests oil and soap products to determine fitness for use in cloth and yarn finishing processes. Tests dyed goods for stripping (removing dye). Tests greige goods to determine if goods are of specified quality for dyeing, printing, and finishing. Verifies dye formulas used to develop or match colors by dyeing samples of cloth, yarn or textile fibers, and determines fastness of dyes, using laboratory equipment. Tests raw stock for moisture content with meter-equipped probe. Verifies efficiency of scouring process by testing wool samples to determine percentage of natural greases removed, using scales, solvents, and ovens. Measures tear strength and wet and dry tensile strength, using tensile-testing equipment. Determines color value by subjecting material to lights. Visually inspects yarns and finished material. May classify finished product according to quality and estimate amount of mending required.
GOE: 02.04.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 80

029.383-010 PILOT, SUBMERSIBLE (any industry)

Pilots submersible craft to conduct research in fields of oceanography or marine biology, test capabilities and performance of craft and auxiliary equipment, or perform underwater activities, such as exploration, mapping, photography, or construction, salvage or rescue work: Plans and develops operational procedures or techniques in order to investigate and test theories, or carry out specific underwater activities. Conducts predive operational tests on craft, life support systems, and other equipment. Pilots and controls craft to carry out mission in accordance with operational plans. Conducts scientific tests on effect of underwater life, life support systems, and habitats on human or other animals. Performs maintenance and repair on underwater facilities, well-heads, or pipelines. Carries out specific salvage or rescue operations. May perform activities outside of craft, using scuba equipment [SCUBA DIVER (any industry)]. May prepare technical reports or provide data for use by scientific or engineering personnel.
GOE: 05.04.02 STRENGTH: L GED: R5 M3 L4 SVP: 5 DLU: 77

03 COMPUTER-RELATED OCCUPATIONS

This division includes occupations concerned with the application of computers and computer languages and the utilization of the computer in the design and solution of business, scientific, engineering and other technical problems. This division does not include workers, such as accountants, stock brokers, and secretaries, who use computers to aid them in performing their work. Occupations concerned with the mathematical statement of problems for solution by computers are included in Group 020. Occupations concerned with the application of electronics and the principles of engineering to design and develop computing equipment are included in Group 003. Occupations concerned with writing user instructions for computer application programs are included in Group 131. Occupations concerned with training workers to use new or modified information processing procedures are included in Group 166. Occupations concerned with operating and monitoring computers are included in Group 213.

030 OCCUPATIONS IN SYSTEMS ANALYSIS AND PROGRAMMING

This group includes occupations concerned with the analysis and evaluation of procedures and processes to design a sequence of steps for processing data by a computer. These activities may require the conversion of a sequence of steps into a computer language code which will be processed by the computer. Included are testing, locating and correcting program errors, enhancing, maintaining, and executing the coded instructions.

030.062-010 SOFTWARE ENGINEER (profess. & kin.)

Researches, designs, and develops computer software systems, in conjunction with hardware product development, for medical, industrial, military, communications, aerospace, and scientific applications, applying principles and techniques of computer science, engineering, and mathematical analysis: Analyzes software requirements to determine feasibility of design within time and cost constraints. Consults with hardware engineers and other engineering staff to evaluate interface between hardware and software, and operational and perform-

ance requirements of overall system. Formulates and designs software system, using scientific analysis and *mathematical models* to predict and measure outcome and consequences of design. Develops and directs software system testing procedures, programming, and documentation. Consults with customer concerning maintenance of software system. May coordinate installation of software system.
GOE: 11.01.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 90

030.162-010 COMPUTER PROGRAMMER (profess. & kin.) alternate titles: applications programmer; programmer, business

Converts data from project specifications and statements of problems and procedures to create or modify computer programs: Prepares, or receives from SYSTEMS ANALYST (profess. & kin.) 030.167-014, detailed workflow chart and diagram to illustrate sequence of steps that program must follow and to describe input, output, and logical operations involved. Analyzes workflow chart and diagram, applying knowledge of computer capabilities, subject matter, and symbolic logic. Confers with supervisor and representatives of departments concerned with program to resolve questions of program intent, data input, output requirements, and inclusion of internal checks and controls. Converts detailed logical flow chart to language processable by computer. Enters program codes into computer system. Inputs test data into computer. Observes computer monitor screen to interpret program operating codes. Corrects program errors, using methods such as modifying program or altering sequence of program steps. Writes instructions to guide operating personnel during production runs. Analyzes, reviews, and rewrites programs to increase operating efficiency or to adapt program to new requirements. Compiles and writes documentation of program development and subsequent revisions. May train workers to use program. May assist COMPUTER OPERATOR (clerical) 213.362-010 to resolve problems in running computer program. May work with SYSTEMS ANALYST (profess. & kin.) to obtain and analyze project specifications and flow charts. May direct and coordinate work of others to write, test, and modify computer programs.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 90

030.162-014 PROGRAMMER-ANALYST (profess. & kin.) alternate titles: applications analyst-programmer

Plans, develops, tests, and documents computer programs, applying knowledge of programming techniques and computer systems: Evaluates user request for new or modified program, such as for financial or human resource management system, clinical research trial results, statistical study of traffic patterns, or analyzing and developing specifications for bridge design, to determine feasibility, cost and time required, compatibility with current system, and computer capabilities. Consults with user to identify current operating procedures and clarify program objectives. Reads manuals, periodicals, and technical reports to learn ways to develop programs that meet user requirements. Formulates plan outlining steps required to develop program, using structured analysis and design. Submits plans to user for approval. Prepares flowcharts and diagrams to illustrate sequence of steps program must follow and to describe logical operations involved. Designs computer terminal screen displays to accomplish goals of user request. Converts project specifications, using flowcharts and diagrams, into sequence of detailed instructions and logical steps for coding into language processable by computer, applying knowledge of computer programming techniques and computer languages. Enters program codes into computer system. Enters commands into computer to run and test program. Reads computer printouts or observes display screen to detect syntax or logic errors during program test, or uses diagnostic software to detect errors. Replaces, deletes, or modifies codes to correct errors. Analyzes, reviews, and alters program to increase operating efficiency or adapt to new requirements. Writes documentation to describe program development, logic, coding, and corrections. Writes manual for users to describe installation and operating procedures. Assists users to solve operating problems. Recreates steps taken by user to locate source of problem and rewrites program to correct errors. May use computer-aided software tools, such as flowchart design and code generation, in each stage of system development. May train users to use program. May oversee installation of hardware and software. May provide technical assistance to program users. May install and test program at user site. May monitor performance of program after implementation. May specialize in developing programs for business or technical applications.
GOE: 11.01.01 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 90

030.162-018 PROGRAMMER, ENGINEERING AND SCIENTIFIC (profess. & kin.)

Converts scientific, engineering, and other technical problem formulations to format processable by computer: Resolves symbolic formulations, prepares flow charts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. Confers with other engineering and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing. Enters program into computer system. Reviews results of computer runs with interested personnel to determine necessity for modifications or reruns. Develops new subroutines or expands program to simplify statement, programming, or coding of future problems. May direct and coordinate activities of COMPUTER PROGRAMMERS (profess. & kin.) 030.162-010 working as part of project team.
GOE: 11.01.01 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 90

030.162-022 SYSTEMS PROGRAMMER (profess. & kin.)

Coordinates installation of computer operating system software and tests
maintains, and modifies software, using computer terminal: Reads loading and
running instructions for system software, such as task scheduling, memory man-
agement, computer file system, or controlling computer input and output, and
loads tape into tape drive or transfers software to magnetic disk. Initiates tes
of system program and observes readout on monitor of computer system to de
tect errors or work stoppage. Enters code changes into computer system to cor
rect errors. Analyzes performance indicators, such as system's response time
number of transactions per second, and number of programs being processe
at once, to ensure that system is operating efficiently. Changes system softwa
so that system performance will meet objectives. Reviews computer system ca
pabilities, workflow, and scheduling limitations to determine if requeste
changes to operating system are possible. Writes description of steps taken
modify system and procedures required to implement new software. Assis
users having problems with use of system software. May train users, COM
PUTER OPERATOR (clerical) 213.362-010, and COMPUTER PROGRAM
MER (profess. & kin.) 030.162-010 to use system software. May prepa
workflow charts and diagrams to modify system software. May visit vendo
to observe demonstration of systems software. May administer and moni
computer program that controls user access to system. May review productiv
reports and problem records to evaluate performance of computer system.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 90

030.167-010 CHIEF, COMPUTER PROGRAMMER (profess. & kin.)
ternate titles: coordinator, computer programming

Plans, schedules, and directs preparation of programs to process data a
solve problems by use of computers: Consults with managerial and syste
analysis personnel to clarify program intent, identify problems, suggest chang
and determine extent of programming and coding required. Assigns, coor
nates, and reviews work of programming personnel. Develops programs fr
workflow charts or diagrams, considering factors, such as computer storage
pacity and speed, extent of peripheral equipment, and intended use of out
data. Converts workflow charts to language processable by computer. En
program codes into computer. Enters test data into computer. Analyzes test r
on computer to correct or direct correction of coded program and input d
Revises or directs revision of existing programs to increase operating efficie
or adapt to new requirements. Compiles documentation of program deve
ment and subsequent revisions. Trains subordinates in programming and
gram coding. Prescribes standards for terms and symbols used to simplify in
pretation of programs. Collaborates with computer manufacturers and o
users to develop new programming methods. Prepares records and reports.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

030.167-014 SYSTEMS ANALYST (profess. & kin.)

Analyzes user requirements, procedures, and problems to automate proc
ing or to improve existing computer system: Confers with personnel of org
zational units involved to analyze current operational procedures, identify p
lems, and learn specific input and output requirements, such as forms of
input, how data is to be summarized, and formats for reports. Writes det
description of user needs, program functions, and steps required to develo
modify computer program. Reviews computer system capabilities, workf
and scheduling limitations to determine if requested program or pro
change is possible within existing system. Studies existing information pro
ing systems to evaluate effectiveness and develops new systems to imp
production or workflow as required. Prepares workflow charts and diagran
specify in detail operations to be performed by equipment and computer
grams and operations to be performed by personnel in system. Conducts st
pertaining to development of new information systems to meet current and
jected needs. Plans and prepares technical reports, memoranda, and instruct
manuals as documentation of program development. Upgrades system and
rects errors to maintain system after implementation. May assist COMPU
PROGRAMMER (profess. & kin.) 030.162-010 in resolution of work prob
related to flow charts, project specifications, or programming. May prepare
and cost estimates for completing projects. May direct and coordinate wo
others to develop, test, install, and modify programs.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 90

031 OCCUPATIONS IN DATA COMMUNICATIO AND NETWORKS

This group includes occupations concerned with the evaluation of data
munications and network hardware and software, coordinating data comm
tions activities, and the transmission and reception of data or informatio
electronically. Includes providing support to users of data communication
cupations concerned with installing, maintaining, and repairing data co
nications equipment are included in Group 823.

031.132-010 SUPERVISOR, NETWORK CONTROL OPERATORS
industry) alternate titles: data communications technici
pervisor

Supervises and coordinates activities of workers engaged in monitoring
stalling data communication lines and resolving user data communication
lems: Distributes work assignments and monitors daily logs of NETV
CONTROL OPERATORS (any industry) 031.262-014, using microcon
Explains data communications diagnostic and monitoring procedures to

tors, using computer terminal and following vendor's equipment and software instructions. Explains and demonstrates installation of data communication lines and equipment to operators, using handtools and following vendor manuals. Enters diagnostic commands into computer and determines nature of problem to assist operators to resolve data communication problems. Enters record of actions taken to resolve problem in daily log, using microcomputer. Attends staff meetings to report on and resolve recurrent data communications problems. Attends vendor seminars to learn about changes in data communications technology. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 07.01.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 88

031.262-010 DATA COMMUNICATIONS ANALYST (profess. & kin.)

Researches, tests, evaluates, and recommends data communications hardware and software: Identifies areas of operation which need upgraded equipment, such as modems, fiber optic cables, and telephone wires. Conducts survey to determine user needs. Reads technical manuals and brochures to determine equipment which meets establishment requirements. Visits vendors to learn about available products or services. Tests and evaluates hardware and software to determine efficiency, reliability, and compatibility with existing system, using equipment such as computer terminal and modem. Analyzes test data and recommends hardware or software for purchase. Develops and writes procedures for installation, use, and solving problems of communications hardware and software. Monitors system performance. Trains users in use of equipment. Assists users to identify and solve data communication problems. May write technical specifications to send to vendors for bid. May oversee or assist in installation of communications hardware. May perform minor equipment repairs.
GOE: 11.01.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 90

031.262-014 NETWORK CONTROL OPERATOR (any industry)

Monitors data communications network to ensure that network is available to all system users and resolves data communications problems: Receives telephone call from user with data communications problem, such as failure of data to be transmitted to another location. Reviews procedures user followed to determine if specified steps were taken. Explains user procedures necessary to transmit data. Monitors modems and display screen of terminal to mainframe computer to detect error messages that signal malfunction in communications software or hardware. Enters diagnostic commands into computer to determine nature of problem, and reads codes on screen to diagnose problem. Attaches diagnostic equipment to phone line to learn if line meets specification. Reads technical reference manuals for communications hardware and software to learn cause of problem. Instructs user to enter specified commands into computer to resolve problem. Calls service technician for service when problem cannot be resolved. Enters operating commands into computer to restart program. Records number of daily data communications transactions and number of problems and actions taken, using computer terminal. Updates documentation to record new equipment installed, new sites, and changes to computer configurations. May inspect communications wires and cables. May train staff and users to use equipment. May coordinate installation of or install communications lines.
GOE: 07.06.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 90

032 OCCUPATIONS IN COMPUTER SYSTEMS USER SUPPORT

This group includes occupations concerned with investigating, resolving, and explaining computer-related problems to users of computer systems. Occupations concerned with support for data communications users are included in Group 031.

032.132-010 USER SUPPORT ANALYST SUPERVISOR (profess. & kin.) alternate titles: help desk supervisor

Supervises and coordinates activities of workers who provide problem-solving support to computer users: Assists USER SUPPORT ANALYST (profess & kin.) 032.262.010 in solving nonroutine software, hardware, and procedure problems, using computer and manuals. Talks with staff, computer users, supervisors, and managers to determine requirements for new or modified software and hardware. Writes recommendations for management review. Coordinates installation of hardware and software, and implementation of procedure changes. Performs duties described under SUPERVISOR (any industry) Master Title.
GOE: 11.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 88

032.262-010 USER SUPPORT ANALYST (profess. & kin.) alternate titles: customer service representative; end user consultant; help desk representative; information center specialist; office automation analyst

Investigates and resolves computer software and hardware problems of users: Receives telephone calls from users having problems using computer software and hardware or inquiring how to use specific software, such as statistical, graphics, data base, printing, word processing, programming languages, electronic mail, and operating systems. Talks to user to learn procedures followed and source of error. Answers questions, applying knowledge of computer software, hardware, and procedures. Asks user with problem to use telephone and participate in diagnostic procedures, using diagnostic software, or by listening to and following instructions. Determines whether problem is caused by hardware, such as modem, printer, cables, or telephone. Talks with coworkers to research problem and find solution. Talks to programmers to explain software errors or to recommend changes to programs. Calls software and hardware vendors to request service regarding defective products. Reads trade magazines and attends computer trade shows to obtain current information about computers. May test software and hardware to evaluate ease of use and whether product will aid user in performing work. May write software and hardware evaluation and recommendation for management review. May write or revise user training manuals and procedures. May develop training materials, such as exercises and visual displays. May train users on software and hardware on-site or in classroom, or recommend outside contractors to provide training. May install microcomputers, software, and peripheral equipment, following procedures and using handtools [MICROCOMPUTER SUPPORT SPECIALIST (profess & kin.) 039.264-010]. May work as in-house consultant and research alternate approaches to existing software and hardware when standardized approaches cannot be applied. May conduct office automation feasibility studies, including work flow analysis, space design, and cost comparison analysis. May specialize by type of software, computer language, or computer operating system.
GOE: 11.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 90

033 OCCUPATIONS IN COMPUTER SYSTEMS TECHNICAL SUPPORT

This group includes occupations concerned with providing technical support for computer systems, rather than to users of computer systems. Includes the development, installation, and maintenance of computer operating systems software.

033.162-010 COMPUTER SECURITY COORDINATOR (profess. & kin.) alternate titles: data security coordinator; information security

Plans, coordinates, and implements security measures to safeguard information in computer files against accidental or unauthorized modification, destruction, or disclosure: Confers with computer user department personnel and COMPUTER PROGRAMMER (profess. & kin.) 030.162-010 to plan data security for new or modified software, discussing issues, such as employee data access needs and risk of data loss or disclosure. Reviews plan to ensure compatibility of planned security measures with establishment computer security system software. Modifies security data files to incorporate new software security into establishment security software, using computer terminal, or meets with SYSTEMS PROGRAMMER (profess. & kin.) 030.162-022 to request needed programming changes. Enters commands into computer in attempt to circumvent new security measures to test system. Reviews employee violations of computer security procedures recorded by computer and reports violations to user department managers or talks with employee to ensure that violation is not repeated. Coordinates implementation of vendor-issued security software update. Develops and writes computer security department policies and procedures. May assign computer access passwords to employees [COMPUTER SECURITY SPECIALIST (profess. & kin.) 033.362-010]. May develop, coordinate implementation of, and test plan to continue establishment data processing activities at off-site location in case of emergency, such as fire, at main site [DATA RECOVERY PLANNER (profess. & kin.) 033.162-014].
GOE: 11.10.05 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 90

033.162-014 DATA RECOVERY PLANNER (profess. & kin.) alternate titles: disaster recovery coordinator

Develops, coordinates implementation of, and tests plan to continue establishment data processing activities at off-site location in case of emergency, such as fire, at main site: Establishes priority of data processing activities according to importance to business. Determines hardware, software, data files, safe storage facilities, and other resources required. Develops plan to meet emergency data processing needs. Identifies personnel needed to implement plan. Presents plan to management and recommends means of obtaining required facilities, such as contracting with off-site vendor. Coordinates implementation of plan. Tests emergency data processing system, using computer and test data. Writes report to document test results and updates emergency recovery procedures.
GOE: 11.01.01 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 89

033.162-018 TECHNICAL SUPPORT SPECIALIST (profess. & kin.) alternate titles: project development coordinator; technical operations specialist

Performs any combination of following duties to provide technical support to workers in information processing departments: Develops work goals and department projects. Assigns and coordinates work projects, such as converting to new hardware or software. Designates staff assignments, establishes work priorities, and evaluates cost and time requirements. Reviews completed projects or computer programs to ensure that goals are met and that programs are compatible with other programs already in use. Evaluates work load and capacity of computer system to determine feasibility of expanding or enhancing computer operations. Makes recommendations for improvements in computer system. Reviews and tests programs written by PROGRAMMER-ANALYST (profess. & kin.) 030.162-014 or COMPUTER PROGRAMMER (profess. & kin.) 030.162-010 to ensure that programs meet objectives and specifications. Consults with QUALITY ASSURANCE ANALYST (profess. & kin.) 033.262-010 to ensure that program follows establishment standards. Modifies, tests, and corrects existing programs. Evaluates and tests vendor-supplied software packages for mainframe computer or microcomputers to determine compatibility

with existing system, ease of use, and if software meets user needs. Enters commands into computer to place programs in production status. Inactivates, individually or in combination, each component of computer system, such as central processing unit, tape drives, and mainframe coolers. Tests computer system to determine criticality of component loss. Prioritizes importance of components and writes recommendations for recovering losses and using backup equipment. Assists user to resolve computer-related problems, such as inoperative hardware or software. Trains workers in use of new software or hardware. Reads technical journals or manuals and attends vendor seminars to learn about new computer hardware and software. Writes project reports and documentation for new or modified software and hardware.
GOE: 11.01.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 88

033.167-010 COMPUTER SYSTEMS HARDWARE ANALYST (profess. & kin.) alternate titles: computer systems engineer; information processing engineer; methods analyst, data processing

Analyzes data processing requirements to plan data processing system that will provide system capabilities required for projected work loads, and plans layout and installation of new system or modification of existing system: Confers with data processing and project managers to obtain information on limitations and capabilities of existing system and capabilities required for data processing projects and projected work load. Evaluates factors such as number of departments serviced by data processing equipment, reporting formats required, volume of transactions, time requirements and cost constraints, and need for security and access restrictions to determine hardware configurations. Analyzes information to determine, recommend, and plan layout for type of computers and peripheral equipment, or modifications to existing equipment and system, that will provide capability for proposed project or work load, efficient operation, and effective use of allotted space. May enter data into computer terminal to store, retrieve, and manipulate data for analysis of system capabilities and requirements. May specify power supply requirements and configuration. May recommend purchase of equipment to control dust, temperature, and humidity in area of system installation. May specialize in one area of system application or in one type or make of equipment. May train users to use new or modified equipment. May monitor functioning of equipment to ensure system operates in conformance with specifications.
GOE: 05.01.03 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 88

033.262-010 QUALITY ASSURANCE ANALYST (profess. & kin.)

Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and efficiently. Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendor-provided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.
GOE: 11.01.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 89

033.362-010 COMPUTER SECURITY SPECIALIST (profess. & kin.)

Regulates access to computer data files, monitors data file use, and updates computer security files: Enters commands into computer to allow access to computer system for employee who forgot password. Reads computer security files to determine whether denial of data access reported by employee is justified. Modifies security files to correct error, or explains that employee authorization does not permit access. Answers employee questions about computer security. Modifies security files to add new employees, delete former employees, and change employee name, following notice received from computer user departments and personnel office. Sends printouts listing employee data authorization to computer user departments to verify or correct information in security files. Reviews data use records and compares user names listed in records with employee authorization to ensure that all employees who accessed data files were entitled to do so. Deletes data access of unauthorized users, and for users who have not used data for specified time.
GOE: 11.10.05 STRENGTH: S GED: R4 M2 L3 SVP: 6 DLU: 89

039 COMPUTER-RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with computers.

039.162-010 DATA BASE ADMINISTRATOR (profess. & kin.)

Coordinates physical changes to computer data bases; and codes, tests, and implements physical data base, applying knowledge of data base management system: Designs logical and physical data bases [DATA BASE DESIGN LYST (profess. & kin.) 039.162-014] or reviews description of changes t base design to understand how changes to be made affect physical data (how data is stored in terms of physical characteristics, such as loc amount of space, and access method). Establishes physical data base p eters. Codes data base descriptions and specifies identifiers of data base t base management system or directs others in coding data base descriptions culates optimum values for data base parameters, such as amount of com memory to be used by data base, following manuals and using calcu Specifies user access level for each segment of one or more data items, as insert, replace, retrieve, or delete data.Specifies which users can acces bases and what data can be accessed by user. Tests and corrects errors refines changes to data base. Enters codes to create production data bas lects and enters codes of utility program to monitor data base perform such as distribution of records and amount of available memory. Directs grammers and analysts to make changes to data base management system views and corrects programs. Answers user questions. Confers with cowo to determine impact of data base changes on other systems and staff co making changes to data base. Modifies data base programs to increase pro ing performance, referred to as performance tuning. Workers typically sp ize in one or more types of data base management systems. May train user
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 90

039.162-014 DATA BASE DESIGN ANALYST (profess. & kin.)

Designs logical and physical data bases and coordinates data base dev ment as part of project team, applying knowledge of data base design stan and data base management system: Reviews project request describing base user needs. Estimates time and cost required to accomplish project. mines if project requires creating series of new programs or modifying ex programs that access data stored in data bases. Attends specification me with project team workers to determine scope and limitations of project views workflow chart developed by PROGRAMMER-ANALYST (profes kin.) 030.162-014 to understand tasks computer will perform, such as upd records. Reviews procedures in data base management system manuals for ing changes to data base, such as defining, creating, revising, and contro data base. Revises company definition of data as defined in data dictionary formation about data, including name, description, source of data item, an words for categorizing and searching for data item descriptions). Deter and enters changes to data dictionary descriptions, including type, structure intended use of data within system, using computer or assigns data entry to programmer. Develops data model describing data elements and how are used, following procedures and using pen and template or computer ware. Creates description to enable PROGRAMMER-ANALYST (profes kin.) to understand how programs should access data. Writes description of user accesses data, referred to as logical data base. Writes physical data description, such as location, space requirements, and access method, to pr company data resources against unauthorized access and accidental destruc according to computer industry standards and knowledge of data base man ment system. May specialize in adding, deleting, and modifying data ite data dictionary and be designated Data Dictionary Administrator (profess. kin.). Workers typically specialize in one or more types of data base man ment systems.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 90

039.264-010 MICROCOMPUTER SUPPORT SPECIALIST (profes kin.)

Installs, modifies, and makes minor repairs to microcomputer hardware software systems and provides technical assistance and training to system u Inspects microcomputer equipment and reads order sheet listing user req ments to prepare microcomputer for delivery. Installs or assists service per nel in installation of hardware and peripheral components, such as moni keyboards, printers, and disk drives on user's premises, following design o stallation specifications. Loads specified software packages, such as opera systems, word processing, or spreadsheet programs into computer. Enters c mands and observes system functions to verify correct system operation. structs user in use of equipment, software, and manuals. Answers client's quiries in person and via telephone concerning systems operation; diagn system hardware, software, and operator problems; and recommends or forms minor remedial actions to correct problems based on knowledge of tem operation. Replaces defective or inadequate software packages. R major hardware problems to service personnel for correction. Attends tech conferences and seminars to keep abreast of new software and hardware p uct developments.
GOE: 05.05.05 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 90

04 OCCUPATIONS IN LIFE SCIENCES

This division includes occupations concerned with research to increase h knowledge of living organisms, including humans and the practical applica of biological and behavioral theories.

040 OCCUPATIONS IN AGRICULTURAL SCIENC

This group includes occupations concerned with the application of scien principles to problems related to agriculture, horticulture, forestry, and envi mental impact. Also includes development of improved methods in cultivation, processing, handling, and storing of products; land conservation practices; pest control; landscape planning; and related activities.

040.061-010 AGRONOMIST (profess. & kin.) alternate titles: crop-research scientist; crop scientist

Conducts experiments or investigations in field-crop problems and develops new methods of growing crops to secure more efficient production, higher yield, and improved quality: Plans and carries out breeding studies at experiment stations or farms to develop and improve varieties of field crops, such as cotton, tobacco, or cereal with respect to characteristics, such as yield, quality, adaptation to specific soils or climates, and resistance to diseases and pests [PLANT BREEDER (profess. & kin.)]. Studies crop production to discover best methods of planting, cultivation, harvesting, and effects of various climatic conditions on crops. Develops methods for control of noxious weeds, crop diseases, and insect pests [PLANT PATHOLOGIST (profess. & kin.)]. May specialize in specific field crop, group of field crops, or specific agronomic problem.
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-014 ANIMAL SCIENTIST (profess. & kin.)

Conducts research in selection, breeding, feeding, management, and marketing of beef and dual-purpose cattle, horses, mules, sheep, dogs, goats, and pet animals: Develops improved practices in feeding, housing, sanitation, and parasite and disease control. Controls breeding practices to improve strains of animals. May specialize in animal nutritional research and be designated Animal Nutritionist (profess. & kin.). May be designated according to animal specality.
GOE: 02.02.01 STRENGTH: M GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-018 DAIRY SCIENTIST (profess. & kin.)

Conducts research in selection, breeding, feeding, and management of dairy cattle: Studies feed requirements of dairy animals and nutritive value of feed materials. Carries out experiments to determine effects of different kinds of feed and environmental conditions on quantity, quality, and nutritive value of milk produced. Develops improved practices in care and management of dairy herds and use of improved buildings and equipment. Studies physiology of reproduction and lactation, and carries out breeding programs to improve dairy breeds [ANIMAL BREEDER (agriculture)]. May be designated according to specialty as Dairy-Management Specialist (profess. & kin.); Dairy-Nutrition Specialist (profess. & kin.).
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-022 DAIRY TECHNOLOGIST (profess. & kin.) alternate titles: dairy-manufacturing technologist; dairy-products technologist

Applies principles of bacteriology, chemistry, physics, engineering, and economics to develop new and improved methods in production, preservation, and utilization of milk, cheese, ice cream, and other dairy products: Conducts experiments in such problems as preventing bacterial increase in milk during handling and processing, improving pasteurization methods, and designing better packaging materials, dairy equipment, or supplies. May specialize according to product, as ice cream or cheese, or according to functional activity, as sanitation research or storage problems.
GOE: 02.02.04 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-026 FIBER TECHNOLOGIST (profess. & kin.)

Studies nature, origin, use, improvement, and processing methods of plant, animal, and synthetic fibers: Analyzes wool, mohair, cashmere, camel's hair, alpaca, bristles, feathers, and similar animal and fowl fibers, plant fibers, such as cotton, linen, and jute, and synthetic fibers and products made from these fibers. Applies principles of science to improve growth and quality of fibers. Conducts experiments in blending fibers and develops improved manufacturing methods for converting fibers into articles, such as cloth, felts, rugs, mattresses, and brushes. Conducts tests on fibrous structures for quality control, such as tensile strength and stability to heat, light, and chemicals. May be identified according to fibers studied.
GOE: 05.01.08 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-030 FOREST ECOLOGIST (profess. & kin.)

Conducts research in environmental factors affecting forests: Carries out studies to determine what conditions account for prevalence of different varieties of trees. Studies classification, life history, light and soil requirements, and resistance to disease and insects of different species. Investigates adaptability of different species to new environmental conditions, such as changes in soil type, climate, and altitude.
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-038 HORTICULTURIST (profess. & kin.)

Conducts experiments and investigations to determine methods of breeding, producing, storing, processing, and transporting of fruits, nuts, berries, vegetables, flowers, bushes, and trees: Experiments to develop new or improved varieties having higher yield, quality, nutritional value, resistance to disease, or adaptability to climates, soils, uses, or processes. Determines best methods of planting, spraying, cultivating, and harvesting. May specialize in research, breeding, production, or shipping and storage of fruits, nuts, berries, vegetables, ornamental plants, or other horticultural products and be identified according to specialty. May prepare articles and give lectures on horticultural specialty.
GOE: 02.02.02 STRENGTH: M GED: R6 M6 L6 SVP: 8 DLU: 79

040.061-042 POULTRY SCIENTIST (profess. & kin.)

Conducts research in breeding, feeding, and management of poultry: Examines selection and breeding practices to increase efficiency of production and improve quality of poultry products [ANIMAL BREEDER (agriculture)]. Studies nutritional requirements of various classes of poultry. Develops improved practices in incubation, brooding, feeding, rearing, housing, artificial insemination, and disease and parasite prevention and control. Studies effects of management practices and processing methods on quality of eggs and other poultry products. May specialize in artificial insemination.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-046 RANGE MANAGER (profess. & kin.) alternate titles: range-management specialist

Conducts research in range problems to provide sustained production of forage, livestock, and wildlife: Studies range lands to determine best grazing seasons and number and kind of livestock that can be most profitably grazed. Plans and directs construction and maintenance of range improvements, such as fencing, corrals, reservoirs for stock watering, and structures for soil-erosion control. Develops improved practices for range reseeding. Studies forage plants and their growth requirements to determine varieties best suited to particular range. Develops methods for controlling poisonous plants, and for protecting range from fire and rodent damage. May specialize in particular area and be designated Range Conservationist (profess. & kin.).
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-050 SILVICULTURIST (profess. & kin.)

Establishes and cares for forest stands: Manages tree nurseries and thins forests to encourage natural growth of sprouts or seedlings of desired varieties. Conducts research in such problems of forest propagation and culture as tree growth rate, effects of thinning on forest yield, duration of seed viability, and effects of fire and animal grazing on growth, seed production, and germination of different species. Develops techniques for measuring and identifying trees.
GOE: 02.02.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

040.061-054 SOIL CONSERVATIONIST (profess. & kin.)

Plans and develops coordinated practices for soil erosion control, moisture conservation, and sound land use: Conducts surveys and investigations on rural or urban planning, agriculture, construction, forestry, or mining on measures needed to maintain or restore proper soil management. Plans soil management practices, such as crop rotation, reforestation, permanent vegetation, contour plowing, or terracing as related to soil and water conservation. Prepares soil conservation plans in cooperation with state, county, or local government, farmers, foresters, miners, or urban planners to provide for use and treatment of land according to needs and capability. Applies principles of two or more specialized fields of science, such as agronomy, soil science, forestry, or agriculture to achieve objectives of conservation. May develop or participate in environmental studies.
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-058 SOIL SCIENTIST (profess. & kin.)

Studies soil characteristics and maps soil types, and investigates responses of soils to known management practices to determine use capabilities of soils and effects of alternative practices on soil productivity. Classifies soils according to standard types. Conducts experiments on farms or experimental stations to determine best soil types for different plants. Performs chemical analysis on micro-organism content of soil to determine microbial reactions and chemical and mineralogical relationship to plant growth. Investigates responses of specific soil types to tillage, fertilization, nutrient transformations, crop rotation, environmental consequences, water, gas or heat flow, industrial waste control and other soil management practices. Advises interested persons on rural or urban land use. May specialize in one or more types of activities relative to soil management and productivity and be designated Soil Fertility Expert (profess. & kin.).
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

040.061-062 WOOD TECHNOLOGIST (profess. & kin.)

Conducts research to determine composition, properties, behavior, utilization, development, treatments, and processing methods of wood and wood products: Analyzes physical, chemical, and biological properties of wood. Studies methods of curing wood to determine best and most economical procedure. Develops and improves methods of seasoning, preservation, and treating wood with substances to increase resistance to wear, fire, fungi, insects, and marine borers. Conducts tests to determine ability of wood adhesives to withstand water, oil penetration, temperature extremes, and stability, strength, hardness and crystallinity of wood under variety of conditions. Evaluates and improves effectiveness of industrial equipment and production processes. Investigates processes for converting wood into commodities, such as alcohol, veneer, plywood, wood plastics, and other uses. Determines best type of wood for specific application, and investigates methods of turning waste wood materials into useful products. May specialize in research, quality control, marketing and sales, materials engineering, management or administration, manufacturing, production, or process development.
GOE: 02.02.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 77

040.167-010 FORESTER (profess. & kin.)

Manages and develops forest lands and resources for economic and recreational purposes: Plans and directs forestation and reforestation projects. Maps forest areas, estimates standing timber and future growth, and manages timber sales. Plans cutting programs to assure continuous production of timber or to assist timber companies achieve production goals. Determines methods of cutting and removing timber with minimum waste and environmental damage and

suggests methods of processing wood for various uses. Directs suppression of forest fires and conducts fire-prevention programs. Plans and directs construction and maintenance of recreation facilities, fire towers, trails, roads, and fire breaks. Assists in planning and implementing projects for control of floods, soil erosion, tree diseases, and insect pests in forests [ENTOMOLOGIST (profess. & kin.) 041.061-046; PLANT PATHOLOGIST (profess. & kin.) 041.061-086; SOIL CONSERVATIONIST (profess. & kin.) 040.061-054]. Advises landowners on forestry management techniques and conducts public educational programs on forest care and conservation. May participate in environmental studies and prepare environmental reports. May supervise activities of other forestry workers [SUPERVISOR (any industry) Master Title]. May patrol forests, enforce laws, and fight forest fires. May administer budgets. May conduct research to improve knowledge of forest management. May specialize in one aspect of forest management. May be designated Forestry Supervisor (profess. & kin.); Woods Manager (profess. & kin.).
GOE: 03.01.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 81

040.261-010 SOIL-CONSERVATION TECHNICIAN (profess. & kin.)
Provides technical assistance to land users in planning and applying soil and water conservation practices, utilizing basic engineering and surveying tools, instruments, and techniques and knowledge of agricultural and related sciences, such as agronomy, soil conservation, and hydrology: Analyzes conservation problems of land and discusses alternative solutions to problems with land users. Advises land users in developing plans for conservation practices, such as conservation cropping systems, woodlands management, pasture planning, and engineering systems, based on cost estimates of different practices, needs of land users, maintenance requirements, and life expectancy of practices. Computes design specification for particular practices to be installed, using survey and field information technical guides, engineering field manuals, and calculator. Submits copy of engineering design specifications to land users for implementation by land user or contractor. Surveys property to mark locations and measurements, using surveying instruments. Monitors projects during and after construction to ensure projects conform to design specifications. Periodically revisits land users to view implemented land use practices and plans.
GOE: 02.02.02 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 86

040.361-010 LABORATORY TECHNICIAN, ARTIFICIAL BREEDING (agriculture)
Measures purity and potency of animal semen to develop improved methods of processing and preserving for artificial insemination: Observes sample of freshly collected semen under microscope to determine mobility of sperm cells. Measures density, using densiometer. Adds measured amounts of extender, sodium citrate, and antibiotics to dilute and preserve sample. Transfers to refrigeration unit. Records data for use in compiling histroy of sire. Cleans and sterilizes laboratory equipment. Performs experimental tests, as directed, for purposes such as extension of cell survival rate and development of improved preservation processes. Cultivates, isolates, and identifies pathogenic bacteria and other micro-organisms in semen.
GOE: 02.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 77

040.361-014 SEED ANALYST (profess. & kin.) alternate titles: farm-seed specialist
Tests seed for germination, purity, and weed content: Plants definite number of seeds in box of pure soil and counts number of plants that grow to calculate percentage of germination. Inspects seed with magnifying glass or microscope for chaff, bits of wood, and weed content (any seed other than the one under consideration).
GOE: 02.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

041 OCCUPATIONS IN BIOLOGICAL SCIENCES

This group includes occupations concerned with research in the reproduction, growth and development, structure, life processes, behavior, and classification of living organisms and the application of findings to the prevention of disease in the maintenance and promotion of health in plant and animal life. Also includes investigations into economic utilization, environmental impact, or harmful aspects of specific animals and plants.

041.061-010 ANATOMIST (profess. & kin.)
Studies form and structure of animal bodies: Examines large organs and organ systems of body by systematic observation and dissection, and examines minute structure of organs, tissues, and cells, using microscope. Compares structure of one species with that of another. Determines ability of animal bodies to regenerate destroyed or damaged parts, and investigates possibility of transplanting organs and skin segments from one living body to another. Conducts research into basic laws of biological science to determine application to human medicine.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-014 ANIMAL BREEDER (profess. & kin.)
Develops systems of breeding desirable characteristics, such as improvement in strength, maturity rate, disease resistance, and meat quality, into economically important animals: Determines generic composition of animal populations, and heritability of traits, utilizing principles of genetics. Crossbreeds animals within existing strains, or crosses strains to obtain new combinations of desirable characteristics. Selects progeny having desired strains of both parents, and continues process until acceptable result is obtained.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-018 APICULTURIST (profess. & kin.)
Studies bee culture and breeding: Conducts experiments regarding causes a controls of bee diseases and factors affecting yields of nectar and pollen on v ious plants visited by bees. Conducts research into various phases of pol nation. Improves bee strains, utilizing selective breeding by artificial insemin tion.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-022 AQUATIC BIOLOGIST (profess. & kin.) alternate titl aquatic ecologist
Studies plants and animals living in water, and environmental conditions a fecting them: Investigates salinity, temperature, acidity, light, oxygen conte and other physical conditions of water to determine their relationship to aqua life. Examines various types of water life, such as plankton, worms, clan mussels, and snails. May specialize in study of salt water aquatic life and designated Marine Biologist (profess. & kin.); or fresh water aquatic life a be designated Limnologist (profess. & kin.). May specialize in culture, bree ing, and raising of aquatic life, such as shrimp, lobsters, clams, oysters, or fi and commercial fish farm operations and be designated Aquaculturist (profe & kin.).
GOE: 02.02.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-026 BIOCHEMIST (profess. & kin.) alternate titles: chemist, bi logical
Studies chemical processes of living organisms: Conducts research to det mine action of foods, drugs, serums, hormones, and other substances on tissu and vital processes of living organisms. Isolates, analyzes, and identifies ho mones, vitamins, allergens, minerals, and enzymes and determines effects body functions. Examines chemical aspects of formation of antibodies, and co ducts research into chemistry of cells and blood corpuscles. Studies chemist of living processes, such as mechanisims of development of normal and abno mal cells, breathing and digestion, and of living energy changes, such growth, aging, and death. May specialize in particular area or field of work a be designated Chemist, Clinical (profess. & kin.); Chemist, Enzymes (profe & kin.); Chemist, Proteins (profess. & kin.); Chemist, Steroids (profess. kin.). May clean, purify, refine, and otherwise prepare pharmaceutical co pounds for commercial distribution and develop new drugs and medications a be designated Chemist, Pharmaceutical (profess. & kin.).
GOE: 02.02.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-030 BIOLOGIST (profess. & kin.)
Studies basic principles of plant and animal life, such as origin, relationsh development, anatomy, and functions: May collect and analyze biological da to determine environmental effects of present and potential use of land a water areas, record data, and inform public, state, and federal representativ regarding test results. May prepare environmental impact reports. May speci ize in research centering around particular plant, animal, or aspect of biolog May teach. May specialize in wildlife research and management and be de ignated Wildlife Biologist (profess. & kin.).
GOE: 02.02.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 81

041.061-034 BIOPHYSICIST (profess. & kin.)
Studies physical principles of living cells and organisms, their electrical a mechanical energy, and related phenomena: Conducts research to investiga dynamics in such areas as seeing and hearing; the transmission of electrical i pulses along nerves and muscles, and damage to cells and tissues caused x rays and nuclear particles; manner in which characteristics of plants and a mals are carried forward through successive generations; and absorption of lig by chlorophyll in photosynthesis or by pigments of eye involved in vision. An lyzes functions of electronic and human brains, such as transfer of informati into brain from outside (learning), transfer and manipulation of informati within brain (thinking), and storage of information (memory). Studies spati configuration of submicroscopic molecules, such as proteins, using x ray a electron microscope. May specialize in one activity, such as use of radiati and nuclear particles for treating cancer or use of atomic isotopes to discov transformation of substances in cells.
GOE: 02.02.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-038 BOTANIST (profess. & kin.)
Studies development and life processes, physiology, heredity, environme distribution, anatomy, morphology, and economic value of plants for applicati in such fields as agronomy, forestry, horticulture, and pharmacology: Studi behavior of chromosomes and reproduction, internal and external structures, a examines mechanics and biochemistry of plants and plant cells, using micro scopes, staining techniques, and scientific equipment. Investigates environme and plant communities and effect of rainfall, temperature, climate, soil, and el vation on plant growth from seed to mature plants. Identifies and classifi plants. May conduct environmental studies and prepare reports. May be de ignated according to field of specialization as Plant Ecologist (profess. & kin Plant Taxonomist (profess. & kin.).
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-042 CYTOLOGIST (profess. & kin.)
Studies plant and animal cells: Selects and sections minute particles of a mal or plant tissue for microscopic study, using microtome and other equipme and employs stain techniques to make cell structures visible or to differentia

parts: Studies parts of cells and details of cell division into new cells, using microscope. Analyzes cells concerned with reproduction, and means by which chromosomes divide or unite. Studies formation of sperm and eggs in animal sex glands and origin of blood and tissue cells. Conducts research in physiology of unicellular organisms, such as protozoa, to ascertain physical and chemical factors involved in growth. Studies influence of physical and chemical factors upon malignant and normal cells. Evaluates exfoliated, asperated, or abraded cells to assess hormonal status and presence of atypical or malignant changes. May be designated according to specialty as Animal Cytologist (profess. & kin.); Plant Cytologist (profess. & kin.).
GOE: 02.02.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-046 ENTOMOLOGIST (profess. & kin.)

Studies insects and their relation to plant and animal life: Identifies and classifies species of insects and allied forms, such as mites and spiders. Aids in control and elimination of agricultural, structural, and forest pests by developing new and improved pesticides and cultural and biological methods, including use of natural enemies of pests. Studies insect distribution and habitat and recommends methods to prevent importation and spread of injurious species.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-050 GENETICIST (profess. & kin.)

Studies inheritance and variation of characteristics in forms of life: Performs experiments to determine laws, mechanisms, and environmental factors in origin, transmission, and development of inherited traits. Analyzes determinants responsible for specific inherited traits, such as color differences, size, and disease resistance to improve or to understand relationship of heredity to maturity, fertility, or other factors. Devises methods for altering or producing new traits, making use of chemicals, heat, light, or other means. May specialize in particular branch of genetics, such as molecular genetics or population genetics. May perform human genetic counseling or medical genetics.
GOE: 02.02.01 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-054 HISTOPATHOLOGIST (medical ser.) alternate titles: histologist

Studies human or animal tissue to provide data to delineate cause and progress of disease that impairs body function: Trains and oversees laboratory personnel in preparing tissue sections or prepares tissue sections from surgical and diagnostic cases and autopsies. Examines tissue under microscope to detect characteristics of cell structure indicative of disease and writes diagnostic reports. Devises and directs use of special stains and methods for isolating, identifying, and studying function, morphology, and pathology of obscure or difficult-to-identify cells, tissues, and connecting fibers. May conduct autopsies to select tissue specimens for study. May engage in research to develop techniques for diagnosing and identifying pathological conditions. May study anatomy of body tissues, formation of organs, and related problems to obtain data on body functions.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 89

041.061-058 MICROBIOLOGIST (profess. & kin.) alternate titles: bacteriologist

Studies growth, structure, development, and general characteristics of bacteria and other micro-organisms: Isolates and makes cultures of significant bacteria or other micro-organisms in prescribed or standard inhibitory media, controlling factors, such as moisture, aeration, temperature, and nutrition. Identifies micro-organisms by microscopic examination of physiological, morphological, and cultural characteristics. Observes action of micro-organisms upon living tissues of plants, higher animals, and other micro-organisms and on dead organic matter. Makes chemical analyses of substances, such as acids, alcohols, and enzymes, produced by bacteria and other micro-organisms on organic matter. May specialize in study of viruses and rickettsiae and be designated Virologist (profess. & kin.). May specialize in particular material or product field and be designated Bacteriologist, Dairy (profess. & kin.); Bacteriologist, Fishery (profess. & kin.); Bacteriologist, Food (profess. & kin.); Bacteriologist, Industrial (profess. & kin.); Bacteriologist, Medical (profess. & kin.); Bacteriologist, Pharmaceutical (profess. & kin.); or Bacteriologist, Soil (profess. & kin.).
GOE: 02.02.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-062 MYCOLOGIST (profess. & kin.)

Studies mechanism of life processes of edible, poisonous, and parasitic fungi to discover those that are useful to medicine, agriculture, and industry: Studies structure, affinities, classification, genetics, physiology, and growth of fungi. Applies findings to agriculture, medicine, and industry for development of drugs, medicines, molds, and yeasts. May specialize in research and development in such fields as antibiotics or fabric deterioration. May develop improved methods of propagating and growing edible fungi, as mushrooms and be designated Mushroom-Spawn Maker (profess. & kin.).
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-066 NEMATOLOGIST (profess. & kin.)

Studies nematodes (roundworms) that are plant parasitic, transmit diseases, attack insects, or attack soil, fresh water, or marine nematodes: Identifies and classifies nematodes and studies structure, behavior, biology, ecology, physiology, nutrition, culture, and distribution. Studies reactions of plants to parasitic nematodes and associations with other plant disease agents. Develops methods and apparatus for securing representative soil samples containing nematodes, and for isolating, mounting, counting, and identifying specimens. Investigates and develops pest management and control measures, such as chemical, hot water and steam treatments, soil fumigation, biological crop rotations, and cultural practices. See PARASITOLOGIST (profess. & kin.) for scientists who specialize in study of nematodes that are parasitic in man or animals.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-070 PARASITOLOGIST (profess. & kin.)

Studies characteristics, habits, and life cycles of animal parasites, such as protozoans, tapeworms, roundworms, flukes, and other parasitic organisms, to determine manner in which they attack human beings and animals and effects produced: Investigates modes of transmission from host to host. Develops methods and agents to combat parasites. May specialize in study of one variety of parasite, such as animal parasites that attack man, and be designated Medical Parasitologist (profess. & kin.); of parasitic worms and be designated Helminthologist (profess. & kin.); of one celled free living and parasitic organisms and be designated Protozoologist (profess. & kin.).
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-074 PHARMACOLOGIST (profess. & kin.)

Studies effects of drugs, gases, dusts, and other materials on tissue and physiological processes of animals and human beings: Experiments with animals, such as rats, guinea pigs, and mice, to determine reactions of drugs and other substances on functioning of organs and tissues, noting effects on circulation, respiration, digestion, or other vital processes. Standardizes drug dosages or methods of immunizing against industrial diseases by correlating results of animal experiments with results obtained from clinical experimentation on human beings. Investigates preventative methods and remedies for diseases, such as silicosis and lead, mercury, and ammonia poisoning. Analyzes food preservatives and colorings, vermin poisons, and other materials to determine toxic or nontoxic properties. Standardizes procedures for manufacture of drugs and medicinal compounds.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-078 PHYSIOLOGIST (profess. & kin.)

Conducts research on cellular structure and organ-system functions of plants and animals: Studies growth, respiration, circulation, excretion, movement, reproduction, and other functions of plants and animals under normal and abnormal conditions. Performs experiments to determine effects of internal and external environmental factors on life processes and functions, using microscope, x-ray equipment, spectroscope, and other equipment. Studies glands and their relationship to bodily functions. May specialize in physiology of particular body area, function, or system. May specialize in physiology of animals and be designated Animal Physiologist (profess. & kin.); of plants and be designated Plant Physiologist (profess. & kin.); of human organisms and be designated Medical Physiologist (medical ser.).
GOE: 02.02.03 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-082 PLANT BREEDER (profess. & kin.)

Plans and carries out breeding studies to develop and improve varieties of crops: Improves specific characteristics, such as yield, size, quality, maturity, and resistance to frost, drought, disease and insect pests in plants, utilizing principles of genetics and knowledge of plant growth. Develops variety and selects most desirable plants for crossing. Breeds plants, using methods such as inbreeding, crossbreeding, backcrossing, outcrossing, mutating, or interspecific hybridization and selection. Selects progeny having desired characteristics and continues breeding and selection process to reach desired objectives.
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-086 PLANT PATHOLOGIST (profess. & kin.)

Conducts research in nature, cause, and control of plant diseases and decay of plant products: Studies and compares healthy and diseased plants to determine symptoms of diseased condition. Inoculates healthy plants with culture of suspected agents taken from diseased plants and studies effects to determine agents responsible for disease. Isolates disease-causing agent, studies habits and life cycle, and devises methods of destroying or controlling agent [MICROBIOLOGIST (profess. & kin.)]. Tests possible control measures under laboratory and field conditions for comparative effectiveness, practicality, and economy. Investigates comparative susceptibility of different varieties of plants and develops varieties immune to disease [PLANT BREEDER (profess. & kin.)]. Studies rates of spread and intensity of disease under different conditions of soil, climate, and geography, and predicts outbreaks of plant diseases. Determines kinds of plants and insects that harbor or transmit disease. Studies losses from deterioration of perishable plant products in transit or storage and develops practices to prevent or reduce losses. Determines presence of disease producing agents in seed stocks to reduce losses from seed borne diseases. May specialize in type of plant affected, such as cereal crops, fruit, or forest trees, or by type of disease, such as bacterial, virus, fungus, mycoplasma, or nematode. May inspect flower and vegetable seeds and flowering bulbs for diseases, infections, and insect injuries.
GOE: 02.02.02 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-090 ZOOLOGIST (profess. & kin.)

Studies origin, interrelationships, classification, life histories, habits, life processes, diseases, relation to environment, growth and development, genetics, and distribution of animals: Studies animals in natural habitat and collects specimens for laboratory study. Dissects and examines specimens under microscope and uses chemicals and various types of scientific equipment to carry out experimental studies. Prepares collections of preserved specimens or microscopic slides for such purposes as identification of species, study of species develop-

ment, and study of animal diseases. May raise specimens for experimental purposes. May specialize in one aspect of animal study, such as functioning of animal as an organism, or development of organism from egg to embryo stage. May specialize in study of reptiles, frogs, and salamanders and be designated Herpetologist (profess. & kin.); of fish and fishlike forms and be designated Ichthyologist (profess. & kin.); of sponges, jellyfish, and protozoa and be designated Invertebrate Zoologist (profess. & kin.); of birds and be designated Ornithologist (profess. & kin.); of mammals and be designated Mammalogist (profess. & kin.). May study animals for purposes of identification and classification and be designated Animal Taxonomist (profess. & kin.); or study effects of environment on animals and be designated Animal Ecologist (profess. & kin.).
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

041.061-094 STAFF TOXICOLOGIST (government ser.)
Studies effects of toxic substances on physiological functions of human beings, animals, and plants to develop data for use in consumer protection and industrial safety programs: Designs and conducts studies to determine physiological effects of various substances on laboratory animals, plants, and human tissue, using biological and biochemical techniques. Interprets results of studies in terms of toxicological properties of substances and hazards associated with misuse of products containing substances. Provides information concerning toxicological properties of products and materials to regulatory agency personnel and industrial firms. Reviews toxicological data submitted by others for adequacy, and suggests amendment or expansion of data to clarify or correct information. Confers with governmental and industrial personnel to provide advice on precautionary labeling for hazardous materials and products and on nature and degree of hazard in cases of accidental exposure or ingestion. Prepares and maintains records of studies for use as toxicological resource material. Testifies as expert witness on toxicology in hearings and court proceedings.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 86

041.067-010 MEDICAL COORDINATOR, PESTICIDE USE (government ser.)
Studies human health-and-safety aspects of pesticides and other agricultural chemicals: Studies long-term health implications of low-dose pesticide exposure and determines safe worker reentry intervals. Reviews and provides recommendations on medical regulations governing use of pesticides. Reviews information and recommendations pertaining to safe levels of pesticide residues on agricultural products. Recommends specifications for safe working conditions for workers exposed to pesticides or their residues, and makes recommendations on public safety aspects of pesticide exposure. Confers with health department personnel to develop programs to improve ability of physicians and other medical personnel to diagnose, treat, and report pesticide-related illnesses. Confers with government agency representatives, physicians, university staff members, and other research workers to develop health and safety standards related to pesticide exposure. Advises industry representatives on organization of adequate medical supervision programs for employers. Prepares reports on research studies. Addresses interested groups as requested.
GOE: 02.02.01 STRENGTH: S GED: R6 M5 L6 SVP: 9 DLU: 86

041.081-010 FOOD TECHNOLOGIST (profess. & kin.) alternate titles: food scientist
Applies scientific and engineering principles in research, development, production technology, quality control, packaging, processing, and utilization of foods: Conducts basic research, and new product research and development of foods. Develops new and improved methods and systems for food processing, production, quality control, packaging, and distribution. Studies methods to improve quality of foods, such as flavor, color, texture, nutritional value, convenience, or physical, chemical, and microbiological composition of foods. Develops food standards, safety and sanitary regulations, and waste management and water supply specifications. Tests new products in test kitchen and develops specific processing methods in laboratory pilot plant, and confers with process engineers, flavor experts, and packaging and marketing specialists to resolve problems. May specialize in one phase of food technology, such as product development, quality control, or production inspection, technical writing, teaching, or consulting. May specialize in particular branch of food technology, such as cereal grains, meat and poultry, fats and oils, seafood, animal foods, beverages, dairy products, flavors, sugars and starches, stabilizers, preservatives, colors, and nutritional additives, and be identified according to branch of food technology.
GOE: 02.02.04 STRENGTH: L GED: R6 M5 L4 SVP: 7 DLU: 77

041.167-010 ENVIRONMENTAL EPIDEMIOLOGIST (government ser.)
Plans, directs, and conducts studies concerned with incidence of disease in industrial settings and effects of industrial chemicals on health: Confers with industry representatives to select occupational groups for study and to arrange for collection of data concerning work history of individuals and disease concentration and mortality rates among groups. Plans methods of conducting epidemiological studies and provides detailed specifications for collecting data to personnel participating in studies. Develops codes to facilitate computer input of demographic and epidemiological data for use by data processing personnel engaged in programming epidemiological statistics. Compares statistics on causes of death among members of selected working populations with those among general population, using life-table analyses. Analyzes data collected to determine probable effects of work settings and activities on disease and mortality rates, using valid statistical techniques and knowledge of epidemiology.
Presents data in designated statistical format to illustrate common
among workers in selected occupations. Initiates and maintains contac
statistical and data processing managers in other agencies to maintain
to epidemiological source materials. Evaluates materials from all sources
dition to or amendment of epidemiological data bank. Plans and directs
ties of clerical and statistical personnel engaged in tabulation and anal
epidemiological information to ensure accomplishment of objectives.
GOE: 02.02.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 86

041.261-010 PUBLIC-HEALTH MICROBIOLOGIST (government
Conducts experiments to detect presence of harmful or pathogenic
in water, food supply, or general environment of community and to co
eliminate sources of possible pollution or contagion: Makes periodic lab
counts of bacteria in water supply. Analyzes samples of sewage for
micro-organisms and for rate of sludge purification by aerobic bacteria.
ines milk, shellfish, and other food items for micro-organisms constitutin
ace to public health. Cooperates with hospitals and clinical laboratories
tifying micro-organisms taken from diseased persons to determine pres
bacteria causing contagious or epidemic diseases. May inoculate mem
community against contagious diseases.
GOE: 02.04.02 STRENGTH: L GED: R6 M6 L6 SVP: 7 DLU: 77

041.381-010 BIOLOGY SPECIMEN TECHNICIAN (profess. & kin.
Prepares and embeds in plastic, biological specimens of plant and anim
for use as instructional aids: Selects plant or animal specimen in preser
dried state. Dissects animal and cleans all matter from skeletal structure
pares slices or cross sections of small animals, embryos, or cross secti
animal organs, such as glands, kidneys, hearts, or eyes. Selects, trim
stains a variety of stalks, flowers, and leaves to show plant structure an
tems. Selects different stains to clearly indicate support structure, circ
system, or other feature of plant or animal. Assembles and positions c
nents of specimen in mold, using pins and holding devices. Mixes polylite
tic or other material and completes embedding by varied molding techn
Works with plants, animals, mollusks, insects, and other classes of plan
animals. Identifies type and age of specimen, date of preparation, and t
embedding material used. May operate incubator to grow chicken eggs fo
bryo specimens. May prepare ecological kits which demonstrate polluting
ditions in water, soil, or air.
GOE: 02.04.02 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

041.384-010 HERBARIUM WORKER (profess. & kin.)
Fumigates, presses, and mounts plant specimens, and maintains coll
records of herbarium maintained by botanical garden, museum, or other i
tion: Records identification information concerning incoming plants.
specimens in fumigation cabinet and turns valves to release toxic fume
destroy insects, fungus, or parasites adhering to specimens. Arranges spec
between sheets of unsized paper so that upper and under portions of l
blossoms, and other components are visible, and pads paper with layers o
and newsprint to protect specimens and form stacks. Places specified n
of stacks in pressing frame and writes identification information on top
of paper on each stack. Secures frame around stacks by tightening frame
tion with screws, fastening with leather straps, or tying with twine, to com
stacks and press and dry specimens in desired configuration. Mounts
specimens on heavy paper, using glue, adhesive strips, or needle and th
taking care to prevent distortion or breakage of specimens. Writes identific
information on papers and inserts mounted specimens in labeled envelop
folders. Files folders in drawers or cabinets according to standard bota
classification system. Maintains card files of specimens in herbarium colle
and records of acquisitions, loans, exchanges, or sales of specimens.
GOE: 02.04.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 86

045 OCCUPATIONS IN PSYCHOLOGY

This group includes occupations concerned with the collection, interpreta
and application of scientific data relating to human behavior and mental
esses. Activities are in either applied fields of psychology or in basic sci
fields and research.

045.061-010 PSYCHOLOGIST, DEVELOPMENTAL (profess. & kin.)
Investigates problems concerning growth and development of emotio
mental, physical, and social aspects of individuals, to increase understandin
origins of behavior and processes of human growth and decline: Formulates
pothesis or research problem and selects or develops method of investiga
to test hypothesis. Studies behavior of children to analyze processes of learn
development of language in children, and parents' influence on children's
havior. Administers intelligence and performance tests to establish and mea
patterns of intellectual and psychological growth, development, and decline
children and adults. Observes and records behavior of infants to establish
terns of social, motor, and sensory development. Analyzes growth of social
ues and attitudes, using information obtained from observation, questionna
and interviews. Formulates theories based on research findings for applica
in such fields as juvenile delinquency, education and guidance of children,
ent education, and welfare of aged. Experiments with animals [PSYCHO
GIST, EXPERIMENTAL (profess. & kin.)], to make comparative studies ac
species lines to contribute to understanding of human behavior. May specia
in study and treatment of children and be designated Child Psychologist (
fess. & kin.).

GOE: 11.03.01 STRENGTH: L GED: R6 M6 L5 SVP: 7 DLU: 77

045.061-014 PSYCHOLOGIST, ENGINEERING (profess. & kin.) alternate titles: human factors specialist

Conducts research, development, application, and evaluation of psychological principles relating human behavior to characteristics, design, and use of environments and systems within which human beings work and live: Collaborates with equipment designers in design, development, and utilization of man-machine systems to obtain optimum efficiency in terms of human capabilities. Advises on human factors to be considered in design of man-machine systems, military equipment, and industrial products. Participates in solving such problems as determining numbers and kinds of workers required to operate machines, allocation of functions to machines and operators, and layout and arrangement of work sites. Analyzes jobs to establish requirements for use in classification, selection, placement, and training of personnel [JOB ANALYST (profess. & kin.)]. Develops training methods and materials, such as curriculums, lectures, and films, and prepares handbooks of human engineering data for use by equipment and system designers. May conduct research to develop psychological theories concerning such subjects as effects of physical factors (temperature, humidity, vibration, noise, and illumination) on worker's behavior; functional design of dials, scales, meters, and other instruments to minimize sensory requirements; specifications for optimal size, shape, direction and speed of motion, and location of equipment controls, and effects of environmental, organismic, and task or job variables on work behavior and life quality.
GOE: 11.03.01 STRENGTH: S GED: R6 M6 L6 SVP: 8 DLU: 77

045.061-018 PSYCHOLOGIST, EXPERIMENTAL (profess. & kin.)

Plans, designs, conducts, and analyzes results of experiments to study problems in psychology: Formulates hypotheses and experimental designs to investigate problems of perception, memory, learning, personality, and cognitive processes. Designs and constructs equipment and apparatus for laboratory study. Selects, controls, and modifies variables in laboratory experiments with humans or animals, and observes and records behavior in relation to variables. Analyzes test results, using statistical techniques, and evaluates significance of data in relation to original hypothesis. Collaborates with other scientists in such fields as physiology, biology, and sociology in conducting interdisciplinary studies of behavior and formulating theories of behavior. Writes papers describing experiments and interpreting test results for publication or for presentation at scientific meetings. May specialize in aesthetics, memory, learning, autonomic functions, electroencephalography, feeling and emotion, motivation, motor skills, perception, or higher order cognitive processes. May conduct experiments to study relationship of behavior to various bodily mechanisms and be designated Psychologist, Physiological (profess. & kin.). May specialize in study of animal behavior to develop theories of animal and human behavior and be designated Psychologist, Comparative (profess. & kin.).
GOE: 11.03.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

045.067-010 PSYCHOLOGIST, EDUCATIONAL (profess. & kin.)

Investigates processes of learning and teaching and develops psychological principles and techniques applicable to educational problems to foster intellectual, social, and emotional development of individuals: Conducts experiments to study importance of motivation in learning, implications of transfer of training in teaching, and nature and causes of individual differences in mental abilities to promote differentiated educational procedures to meet individual needs of students. Analyzes characteristics and adjustment needs of superior and inferior students and recommends educational program to promote maximum adjustment. Formulates achievement, diagnostic, and predictive tests to aid teachers in planning methods and content of instruction. Administers standardized tests to diagnose disabilities and difficulties among students and to develop special methods of remedial instruction. Investigates traits and attitudes of teachers to study conditions that contribute to or detract from optimal mental health of teachers. Studies effects of teachers' feelings and attitudes upon pupils, and characteristics of successful teachers to aid school administrators in selection and adjustment of teachers. Collaborates with education specialists in developing curriculum content and methods of organizing and conducting classroom work. May specialize in educational measurement, school adjustment, school learning, or special education.
GOE: 11.03.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

045.067-014 PSYCHOLOGIST, SOCIAL (profess. & kin.)

Investigates psychological aspects of human interrelationships to gain understanding of individual and group thought, feeling, and behavior, utilizing behavioral observation, experimentation, or survey techniques: Evaluates individual and group behavior, developing such techniques as rating scales and sampling methods to collect and measure data. Conducts surveys and polls to measure and analyze attitudes and opinions as basis for predicting economic, political, and other behavior, using interviews, questionnaires, and other techniques, and adhering to principles of statistical sampling in selecting people. Observes and analyzes relations of individuals to religious, racial, political, occupational, and other groups to evaluate behavior of individuals toward one another in groups, attitudes that exist in groups, and influence of group on individual. Investigates social behavior of individuals to study such problems as origin and nature of prejudice and stereotyping, transmission of values and attitudes in child rearing, and contribution of factors in social environment to individual mental health and illness. Conducts experimental studies on motivation, morale, and leadership, and prepares reports on findings.
GOE: 11.03.01 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 77

045.067-018 PSYCHOMETRIST (profess. & kin.)

Administers, scores, and interprets intelligence, aptitude, achievement, and other psychological tests to provide test information to teachers, counselors, students, or other specified entitled party: Gives paper and pencil tests or utilizes testing equipment, such as picture tests and dexterity boards, under standard conditions. Times tests and records results. Interprets test results in light of standard norms, and limitations of test in terms of validity and reliability.
GOE: 11.03.01 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 87

045.107-010 COUNSELOR (profess. & kin.)

Counsels individuals and provides group educational and vocational guidance services: Collects, organizes, and analyzes information about individuals through records, tests, interviews, and professional sources, to appraise their interests, aptitudes, abilities, and personality characteristics, for vocational and educational planning. Compiles and studies occupational, educational, and economic information to aid counselees in making and carrying out vocational and educational objectives. Refers students to placement service. Assists individuals to understand and overcome social and emotional problems. May engage in research and follow-up activities to evaluate counseling techniques. May teach classes. May be designated according to area of activity as Academic Counselor (education); Career Placement Services Counselor (education); Employment Counselor (government ser.); Guidance Counselor (education); Vocational Advisor (education).
GOE: 10.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 81

045.107-014 COUNSELOR, NURSES' ASSOCIATION (medical ser.)

Offers vocational, educational, and professional counseling to registered professional nurses, licensed practical nurses, and prospective professional and practical nurse students: Compiles credentials and prepares biographies of counselees. Provides information relative to qualifications required, opportunities for placement and advancement, wages, hours, and other data pertaining to selected field of work to assist nurses in determining educational and vocational objectives. Refers qualified nurses to employers for placement. Assists in establishing personnel policies relative to placement. Aids applicants in obtaining vocational, health, or other assistance from community agencies. May assist in recruitment.
GOE: 10.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

045.107-018 DIRECTOR OF COUNSELING (profess. & kin.) alternate titles: counseling-center manager; director, counseling bureau; director, vocational counseling; head counselor

Directs personnel engaged in providing educational and vocational guidance for students and graduates: Assigns and evaluates work of personnel. Conducts in-service training program for professional staff. Coordinates counseling bureau with school and community services. Analyzes counseling and guidance procedures and techniques to improve quality of service. Counsels individuals and groups relative to personal and social problems, and educational and vocational objectives. Addresses community groups and faculty members to interpret counseling service. Supervises maintenance of occupational library for use by counseling personnel. Directs activities of testing and occupational service center. May supervise auxiliary services, such as student learning center. May supervise in-service training programs in counseling, testing, or occupational information for graduate students. May teach graduate courses in psychology, guidance, and related subjects. May participate in appraising qualifications of candidates for faculty positions and eligibility of students for admission to medical, nursing, and engineering schools.
GOE: 10.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

045.107-022 CLINICAL PSYCHOLOGIST (profess. & kin.) alternate titles: psychologist, clinical

Diagnoses or evaluates mental and emotional disorders of individuals, and administers programs of treatment: Interviews patients in clinics, hospitals, prisons, and other institutions, and studies medical and social case histories. Observes patients in play or other situations, and selects, administers, and interprets intelligence, achievement, interest, personality, and other psychological tests to diagnose disorders and formulate plans of treatment. Treats psychological disorders to effect improved adjustments utilizing various psychological techniques, such as milieu therapy, psychodrama, play therapy and hypnosis. Selects approach to use in individual therapy, such as directive, nondirective, and supportive therapy, and plans frequency, intensity, and duration of therapy. May collaborate with PSYCHIATRIST (medical ser.) 070.107-014, and other specialists in developing treatment programs for patients. May instruct and direct students serving psychological internships in hospitals and clinics. May develop experimental designs and conduct research in fields of personality development and adjustment, diagnosis, treatment, and prevention of mental disorders. May serve as consultant to industrial, social, educational, welfare, and other agencies on individual cases or in evaluation, planning, and development of mental health programs. May specialize in behavior problems and therapy, crime and delinquency, group therapy, individual diagnosis and therapy, mental deficiency, objective tests, projective techniques, or speech pathology.
GOE: 10.01.02 STRENGTH: S GED: R6 M5 L6 SVP: 8 DLU: 81

045.107-026 PSYCHOLOGIST, COUNSELING (profess. & kin.)

Provides individual and group counseling services in universities and colleges, schools, clinics, rehabilitation centers, Veterans Administration hospitals, and industry, to assist individuals in achieving more effective personal, social, educational, and vocational development and adjustment: Collects data about in-

dividual through use of interview, case history, and observational techniques. Selects and interprets psychological tests designed to assess individual's intelligence, aptitudes, abilities, and interests, applying knowledge of statistical analysis. Evaluates data to identify causes of problem of individuals and to determine advisability of counseling or referral to other specialists or institutions. Conducts counseling or therapeutic interviews to assist individual to gain insight into personal problems, define goals, and plan action reflecting interests, abilities, and needs. Provides occupational, educational, and other information to enable individual to formulate realistic educational and vocational plans. Follows up results of counseling to determine reliability and validity of treatment used. May engage in research to develop and improve diagnostic and counseling techniques. May administer and score psychological tests.
GOE: 10.01.02 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

045.107-030 PSYCHOLOGIST, INDUSTRIAL-ORGANIZATIONAL (profess. & kin.)

Develops and applies psychological techniques to personnel administration, management, and marketing problems: Observes details of work and interviews workers and supervisors to establish physical, mental, educational, and other job requirements. Develops interview techniques, rating scales, and psychological tests to assess skills, abilities, aptitudes, and interests as aids in selection, placement, and promotion. Organizes training programs, applying principles of learning and individual differences, and evaluates and measures effectiveness of training methods by statistical analysis of production rate, reduction of accidents, absenteeism, and turnover. Counsels workers to improve job and personal adjustments. Conducts research studies of organizational structure, communication systems, group interactions, and motivational systems, and recommends changes to improve efficiency and effectiveness of individuals, organizational units, and organization. Investigates problems related to physical environment of work, such as illumination, noise, temperature, and ventilation, and recommends changes to increase efficiency and decrease accident rate. Conducts surveys and research studies to ascertain nature of effective supervision and leadership and to analyze factors affecting morale and motivation. Studies consumer reaction to new products and package designs, using surveys and tests, and measures effectiveness of advertising media to aid in sale of goods and services. May advise management on personnel policies and labor-management relations. May adapt machinery, equipment, workspace, and environment to human use. May specialize in development and application of such techniques as job analysis and classification, personnel interviewing, ratings, and vocational tests for use in selection, placement, promotion, and training of workers and be designated Psychologist, Personnel (profess. & kin.). May apply psychological principles and techniques to selection, training, classification, and assignment of military personnel and be designated Psychologist, Military Personnel (profess. & kin.). May conduct surveys and tests to study consumer reaction to new products and package design and to measure effectiveness of advertising media to aid manufacturers in sale of goods and services and be designated Market-Research Analyst (profess. & kin.) II.
GOE: 11.03.01 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

045.107-034 PSYCHOLOGIST, SCHOOL (profess. & kin.)

Evaluates needs of average, gifted, handicapped, and disturbed children within educational system or school, and plans and carries out programs to enable children to attain maximum achievement and adjustment: Conducts diagnostic studies to identify child's needs, limitations, and potentials, observing child in classroom and at play, studying school records, consulting with parents and school personnel, and administering and interpreting diagnostic findings. Plans special placement or other treatment programs. Counsels pupils individually and in groups, using psychodrama, play therapy, personal interviews, and other psychological methods to assist pupils to achieve personal, social, and emotional adjustment. Carries out research to aid in introduction of programs in schools to meet current psychological, educational, and sociological needs of children. Advises teachers and other school personnel on methods to enhance school and classroom atmosphere to provide motivating educational environment. Refers individuals to community agencies to secure medical, vocational or social services for child or family. Participates in planning of remedial classes and testing programs designed to meet needs of students. Serves as consultant to school board, superintendent, administrative committees, and parent-teacher groups in matters involving psychological services within educational system or school.
GOE: 10.01.02 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

045.107-038 RESIDENCE COUNSELOR (education) alternate titles: counselor, dormitory; dormitory supervisor; head resident, dormitory

Provides individual and group guidance services relative to problems of scholastic, educational, and personal-social nature to dormitory students: Suggests remedial or corrective actions and assists students in making better adjustments and in planning intelligent life goals. Plans and directs program to orient new students and assists in their integration into campus life. Initiates and conducts group conferences to plan and discuss programs and policies related to assignment of quarters, social and recreational activities, and dormitory living. Supervises dormitory activities. Investigates reports of misconduct and attempts to resolve or eliminate causes of conflict. May interview all dormitory students to determine need for counseling.
GOE: 10.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

045.107-042 VOCATIONAL REHABILITATION COUNSELOR (government ser.) alternate titles: counselor, vocational rehabilitation

Counsels handicapped individuals to provide vocational rehabilitation services: Interviews and evaluates handicapped applicants, and confers with medical and professional personnel to determine type and degree of handicap, eligibility for service, and feasibility of vocational rehabilitation. Accepts or recommends acceptance of suitable candidates. Determines suitable job or business consistent with applicant's desires, aptitudes, and physical, mental, and emotional limitations. Plans and arranges for applicant to study or train for job. Assists applicant with personal adjustment throughout rehabilitation program. Aids applicant in obtaining medical and social services during training. Promotes and develops job openings and places qualified applicant in employment. May specialize in type of disability, such as mental illness, alcohol abuse, hearing and visual impairment, or readjustment after prison release.
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 81

045.107-046 PSYCHOLOGIST, CHIEF (profess. & kin.)

Plans psychological service programs and directs, coordinates, and participates in activities of personnel engaged in providing psychological services to clients in psychiatric center or hospital: Reviews reports, case management reviews, and psychiatric center's or hospital's procedural manual to assess need for psychological services. Plans psychological treatment programs that meet standards of accreditation. Plans utilization of available staff, assigns staff to treatment units, and recruits professional and nonprofessional psychological staff. Develops, directs, and participates in training programs. Directs testing and evaluation of new admissions and re-evaluation of present clients. Participates in staff conferences to evaluate and plan treatment programs. Interviews clients that present difficult and complex diagnostic problems and assesses their psychological status. Reviews management of cases, assignments, case problems, issues, and methods of treatment. Works with community agencies to develop effective corrective programs and to arrange to provide psychological services. Plans and supervises psychological research. Collaborates with psychiatrists and other professional staff to help develop comprehensive program of therapy, evaluation, and treatment.
GOE: 10.01.02 STRENGTH: S GED: R6 M5 L6 SVP: 8 DLU: 86

045.107-050 CLINICAL THERAPIST (profess. & kin.) alternate titles: clinical counselor

Counsels individuals or groups regarding psychological or emotional problems, such as stress, substance abuse, or family situations, using evaluative techniques, and develops and implements therapeutic treatment plan in medical setting: Interviews patient to obtain information concerning medical history or other pertinent information. Observes client to detect indications of abnormal physical or mental behavior. Selects and administers various tests, such as psychological tests, personality inventories, and intelligence quotient tests, to identify behavioral or personality traits and intelligence levels, and records results. Reviews results of tests to evaluate client needs. Plans and administers therapeutic treatment, such as behavior modification and stress management therapy, using biofeedback equipment, to assist patient in controlling disorders and other problems. Changes method and degree of therapy when indicated by client reactions. Discusses progress toward goals with client, such as controlling weight, stress, or substance abuse. Consults with medical doctor or other specialists concerning treatment plan and amends plan as directed. Conducts relaxation exercises, peer counseling groups, and family counseling during clinical therapy sessions. Refers client to supportive services to supplement treatment and counseling. May conduct research in treatment and test validation. May develop evaluative studies of therapy and therapy outcome.
GOE: 10.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 89

045.107-054 COUNSELOR, MARRIAGE AND FAMILY (profess. & kin.)

Provides individual, marital, and family counseling services to adults and children, to assist clients to identify personal and interactive problems, and to achieve effective personal, marital, and family development and adjustment: Collects information about clients (individuals, married couples, or families), using interview, case history, and observation techniques, *funnel approach*, and appraisal and assessment methods. Analyzes information collected to determine advisability of counseling or referral to other specialists or institutions. Reviews notes and information collected to identify problems and concerns. Consults reference material, such as textbooks, manuals, and journals, to identify symptoms, make diagnoses, and develop therapeutic or treatment plan. Counsels clients, using counseling methods and procedures, such as psychotherapy and hypnosis, to assist clients in gaining insight into personal and interactive problems, to define goals, and to plan action reflecting interests, abilities, and needs. Evaluates results of counseling methods to determine reliability and validity of treatment used. Interacts with other professionals to discuss therapy or treatment, new resources or techniques, and to share information.
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 90

045.107-058 SUBSTANCE ABUSE COUNSELOR (profess. & kin.)

Counsels and aids individuals and families requiring assistance dealing with substance abuse problems, such as alcohol or drug abuse: Interviews clients, reviews records, and confers with other professionals to evaluate condition of client. Formulates program for treatment and rehabilitation of client, using knowledge of drug and alcohol abuse problems and counseling and treatment techniques. Counsels clients individually and in group sessions to assist client in overcoming alcohol and drug dependency. Counsels family members to assist

family in dealing with and providing support for client. Refers client to other support services as needed, such as medical evaluation and treatment, social services, and employment services. Monitors condition of client to evaluate success of therapy, and adapts treatment as needed. Prepares and maintains reports and case histories. May formulate and conduct programs to promote prevention of alcohol and drug abuse. May prepare documents for presentation in court and accompany client to court as needed.
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 78

045.117-010 DIRECTOR OF GUIDANCE IN PUBLIC SCHOOLS (education) alternate titles: supervisor, counseling and guidance; supervisor of guidance and testing; supervisor of research

Organizes, administers, and coordinates guidance program in public school system: Formulates guidance policies and procedures. Plans and conducts in-service training program for guidance workers and selected teachers. Plans and supervises testing program in school system and devises and directs use of records, reports, and other material essential to program. Supervises school placement service. Establishes and supervises maintenance of occupational libraries in schools. Coordinates guidance activities with community agencies and other areas of school system. Conducts or supervises research studies to evaluate effectiveness of guidance program. May counsel students on referral basis relative to educational and vocational objectives and personal and social problems.
GOE: 11.07.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

049 OCCUPATIONS IN LIFE SCIENCES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with the application of theoretical or practical aspects of life science.

049.127-010 PARK NATURALIST (government ser.)

Plans, develops, and conducts programs to inform public of historical, natural, and scientific features of national, state, or local park: Confers with park staff to determine subjects to be presented and program schedule. Surveys park to determine forest conditions and distribution and abundance of fauna and flora. Interviews specialists in desired fields to obtain and develop data for programs. Takes photographs and motion pictures to illustrate lectures and publications and to develop displays. Plans and develops audiovisual devices, prepares and presents illustrated lectures, constructs visitor-center displays, and conducts field trips to point out scientific, historic, and natural features of park. Performs emergency duties to protect human life, government property, and natural features of park. May plan, organize, and direct activities of seasonal staff members. May maintain official photographic and informational files for department.
GOE: 11.07.03 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 77

049.364-010 FEED-RESEARCH AIDE (agriculture)

Feeds rations of experimental feeds to animals, such as poultry, dogs, and cows, and compiles data on growth, productivity, and health of animals: Weighs feed rations and livestock and gathers eggs and milks cows. Observes livestock to note changes in health and preference for certain foods. Records data for evaluation by professional personnel. Waters stock and cleans pens.
GOE: 02.04.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

049.364-014 VECTOR CONTROL ASSISTANT (government ser.)

Assists public health staff in activities concerned with identification, prevention, and control of vectors (disease-carrying insects and rodents): Carries and sets up field equipment to be used in surveys of number and type of vectors in area. Sets traps and cuts through brush and weeds to obtain specimens of vector population for use in laboratory tests, using sweep. Prepares, mounts, and stores specimens, following instructions of supervisor. Prepares reports of field surveys and laboratory tests based upon information obtained from personnel involved in specific activities, for use in planning and carrying out projects for prevention and control of vectors.
GOE: 02.04.02 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 86

049.364-018 BIOLOGICAL AIDE (agriculture)

Assists research workers in experiments in biology, bacteriology, plant pathology, mycology, and related agricultural sciences: Sets up laboratory and field equipment, performs routine tests, and keeps records of plant growth, experimental plots, greenhouse activity, use of insecticides, bee hives, and other agricultural experimentation. Cleans and maintains field and laboratory equipment.
GOE: 02.04.02 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 77

05 OCCUPATIONS IN SOCIAL SCIENCES

This division includes occupations concerned with human society and its characteristic elements, such as origin, race, or state, and with economic and social relations and institutions involved in man's existence as a member of an organized community.

050 OCCUPATIONS IN ECONOMICS

This group includes occupations concerned with research and application of economic principles relating to sources of income, expenditures, development of natural resources, and production and consumption of goods. Includes developing theories based on research data and formulating plans to aid in the solution of economic problems in such fields as agriculture, credit and financing, taxation, industry, international trade, and labor supply.

050.067-010 ECONOMIST (profess. & kin.) alternate titles: economic analyst

Plans, designs, and conducts research to aid in interpretation of economic relationships and in solution of problems arising from production and distribution of goods and services: Studies economic and statistical data in area of specialization, such as finance, labor, or agriculture. Devises methods and procedures for collecting and processing data, utilizing knowledge of available sources of data and various econometric and sampling techniques. Compiles data relating to research area, such as employment, productivity, and wages and hours. Reviews and analyzes economic data in order to prepare reports detailing results of investigation, and to stay abreast of economic changes. Organizes data into report format and arranges for preparation of graphic illustrations of research findings. Formulates recommendations, policies, or plans to aid in market interpretation or solution of economic problems, such as recommending changes in methods of agricultural financing, domestic, and international monetary policies, or policies that regulate investment and transfer of capital. May supervise and assign work to staff. May testify at regulatory or legislative hearings to present recommendations. May specialize in specific economic area or commodity and be designated Agricultural Economist (profess. & kin.); Commodity-Industry Analyst (profess. & kin.); Financial Economist (profess. & kin.); Industrial Economist (profess. & kin); International-Trade Economist (profess. & kin.); Labor Economist (profess. & kin.); Price Economist (profess. & kin.); Tax Economist (profess. & kin.).
GOE: 11.03.05 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 81

050.067-014 MARKET-RESEARCH ANALYST I (profess. & kin.)

Researches market conditions in local, regional, or national area to determine potential sales of product or service: Establishes research methodology and designs format for data gathering, such as surveys, opinion polls, or questionaires. Examines and analyzes statistical data to forecast future marketing trends. Gathers data on competitors and analyzes prices, sales, and methods of marketing and distribution. Collects data on customer preferences and buying habits. Prepares reports and graphic illustrations of findings.
GOE: 11.06.03 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

050.117-010 DIRECTOR, EMPLOYMENT RESEARCH AND PLANNING (government ser.)

Directs activities of personnel engaged in compiling, analyzing, and presenting data on employment problems, unemployment compensation benefits, and labor market activities: Plans and directs research projects and surveys to develop data for administration of federal or state laws governing employment service activities. Directs analysis of statistical data for implementing employment service programs and for supplying information to legislative bodies in revising employment legislation. Confers with government officials, employers, labor leaders, and other parties to disseminate and secure information on employment problems and assist in formulating policies to meet demonstrated needs. Advises legislators on implications of employment and training planning and program activities.
GOE: 11.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

051 OCCUPATIONS IN POLITICAL SCIENCE

This group includes occupations concerned with research in the origin, development, and organization of formal and informal political entities. Includes developing theories based on research data; and making recommendations for the solution of problems in such fields as organization and administration of national and local governments, international organizations and relations, governmental policies in foreign and domestic matters, and the relations between governments and special interest groups.

051.067-010 POLITICAL SCIENTIST (profess. & kin.)

Studies phenomena of political behavior, such as origin, development, operation, and interrelationships of political institutions, to formulate and develop political theory: Conducts research into political philosophy and theories of political systems, utilizing information available on political phenomena, such as governmental institutions, public laws and administration, political party systems, and international law. Consults with government officials, civic bodies, research agencies, and political parties. Analyzes and interprets results of studies, and prepares reports detailing findings, recommendations or conclusions. May organize and conduct public opinion surveys and interpret results. May specialize in specific geographical, political, or philosophical aspect of political behavior.
GOE: 11.03.02 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

052 OCCUPATIONS IN HISTORY

This group includes occupations concerned with recording past or current events dealing with some phase of human activity, either in terms of individuals or social, ethnic, political, or geographic groups. Includes occupations in biography and genealogy.

052.067-010 BIOGRAPHER (profess. & kin.)

Specializes in reconstruction in narrative form of career or phase in life of individual: Assembles biographical material from sources, such as news ac-

counts, diaries, personal papers and correspondence, written accounts of events in which subject participated, and consultation with associates and relatives of subject. Portrays character and behavior of subject on basis of historical environment and application of psychological analysis, relating subject's activities to pertinent events during subject's lifetime [WRITER, PROSE, FICTION AND NONFICTION (profess. & kin.)].
GOE: 01.01.02 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

052.067-014 DIRECTOR, STATE-HISTORICAL SOCIETY (profess. & kin.)
Directs activities of state historical society: Directs and coordinates activities of research staff. Reviews publications and exhibits prepared by staff prior to public release in order to ensure historical accuracy of presentations. Speaks before various groups, organizations, and clubs to promote society aims and activities. Consults with or advises other individuals on historical authenticity of various materials. Conducts historical research on subjects or topics of import to society. Performs administrative duties, such as budget preparation, employee evaluation, and program planning. May edit society publications. May conduct campaigns to raise funds for society programs and projects.
GOE: 11.03.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

052.067-018 GENEALOGIST (profess. & kin.)
Conducts research into genealogical background of individual or family in order to establish descent from specific ancestor or to discover and identify forebears of individual or family: Consults American and foreign genealogical tables and publications and documents, such as church and court records, for evidence of births, baptisms, marriages, deaths, and legacies in order to trace lines of descent or succession. Constructs chart showing lines of descent and family relationships. Prepares history of family in narrative form or writes brief sketches emphasizing points of interest in family background.
GOE: 11.03.03 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

052.067-022 HISTORIAN (profess. & kin.)
Prepares in narrative, brief, or outline form chronological account or record of past or current events dealing with some phase of human activity, either in terms of individuals, or social, ethnic, political, or geographic groupings: Assembles historical data by consulting sources of information, such as historical indexes and catalogs, archives, court records, diaries, news files, and miscellaneous published and unpublished materials. Organizes and evaluates data on basis of authenticity and relative significance. Acts as adviser or consultant, and performs research for individuals, institutions, and commercial organizations on subjects, such as technological evolution within industry or manners and customs peculiar to certain historical period. May trace historical development within restricted field of research, such as economics, sociology, or philosophy.
GOE: 11.03.03 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

052.067-026 HISTORIAN, DRAMATIC ARTS (profess. & kin.)
Conducts research to authenticate details, such as customs, costumes, manners of speech, architectural styles, modes of transportation, and other items peculiar to given historical period or specific locality, to avoid anachronisms and inaccuracies in presentation of stage or radio dramas or motion pictures. Reads written historical texts and documents and pictorial material in libraries and museums, consults experts or witnesses of historical events, and visits and observes peculiarities of areas to be used as locale of drama to procure information.
GOE: 11.03.03 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

052.167-010 DIRECTOR, RESEARCH (motion picture; radio-tv broad.)
Directs activities of motion picture or television production research department, and conducts research on various subjects to ensure historical authenticity of productions: Researches specific period, locality or historical event to obtain authentic background for production, such as customs, speech characteristics, or dress, and architectural style of era. Advises members of production staff on matters relating to historical details of subject being photographed or recorded. Reviews and collects data, such as books, pamphlets, periodicals, and rare newspapers, to provide source material for research. Approves or recommends purchase of library reference materials for department, and coordinates activities of workers engaged in cataloging and filing materials. May translate or request translation of reference materials.
GOE: 11.03.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

054 OCCUPATIONS IN SOCIOLOGY

This group includes occupations concerned with research on the development, structure, and processes of society, its institutions and cultures, and the behavior of human beings as members of collectivities and of social systems; on development and consequences of expected and deviant behavior; and on economic, political, and other differences in customs and institutions among cultures. Occupations in social work are included in Group 195.

054.067-010 RESEARCH WORKER, SOCIAL WELFARE (profess. & kin.)
Plans, organizes, and conducts research for use in understanding social problems and for planning and carrying out social welfare programs: Develops research designs on basis of existing knowledge and evolving theory. Constructs and tests methods of data collection. Collects information and makes judgments
through observation, interview, and review of documents. Analyzes a
ates data. Writes reports containing descriptive, analytical, and evalu
tent. Interprets methods employed and findings to individuals within a
community. May direct work of statistical clerks, statisticians, and ot
collaborate with research workers in other disciplines. May be employ
untary or governmental social welfare agencies, community welfare
and schools of social work.
GOE: 11.03.02 STRENGTH: S GED: R6 M5 L5 SVP: 7 DLU: 77

054.067-014 SOCIOLOGIST (profess. & kin.)
Conducts research into development, structure, and behavior of
human beings and patterns of culture and social organization which ha
out of group life in society. Collects and analyzes scientific data c
social phenomena, such as community, associations, social institutio
minorities, social classes, and social change. May teach sociology,
search, prepare technical publications, or act as consultant to lawmake
istrators, and other officials dealing with problems of social policy.
cialize in research on relationship between criminal law and social
causes of crime and behavior of criminals and be designated Cri
(profess. & kin.). May specialize in research on punishment for crime
trol and prevention of crime, management of penal institutions, and r
tion of criminal offenders and be designated Penologist (profess. & k
specialize in research on group relationships and processes in an indu
ganization and be designated Industrial Sociologist (profess. & kin.).
cialize in research on rural communities in contrast with urban com
and special problems occasioned by impact of scientific and industria
tions on rural way of life and be designated Rural Sociologist (profess.
May specialize in research on interrelations between physical environ
technology in spatial distribution of people and their activities and
ignated Social Ecologist (profess. & kin.). May specialize in research
problems arising from individual or group deviation from commonly
standards of conduct, such as crime and delinquency, or social probl
racial discrimination rooted in failure of society to achieve its collect
poses and be designated Social Problems Specialist (profess. & kin.).
cialize in research on origin, growth, structure, and demographic chara
of cities and social patterns and distinctive problems that result from u
vironment and be designated Urban Sociologist (profess. & kin.). May
ize in research on social factors affecting health care, including defi
illness, patient and practitioner behavior, social epidemiology, and del
health care, and be designated Medical Sociologist (profess. & kin.).
and conduct demographic research, surveys, and experiments to study
populations and affecting trends and be designated Demographer (pr
kin.) II.
GOE: 11.03.02 STRENGTH: S GED: R6 M5 L5 SVP: 7 DLU: 77

054.107-010 CLINICAL SOCIOLOGIST (profess. & kin.)
Develops and implements corrective procedures to alleviate group
tions: Confers with individuals and groups to determine nature of gro
function. Observes group interaction and interviews group members to
problems related to factors such as group organization, authority relati
and role conflicts. Develops approaches to solution of group's problems
on findings and incorporating sociological research and study in rela
ciplines. Develops intervention procedures, utilizing techniques such a
views, consultations, role playing, and participant observation of grou
action, to facilitate resolution of group problems. Monitors group int
and role affiliations to evaluate progress and to determine need for ad
change.
GOE: 11.03.02 STRENGTH: S GED: R5 M4 L5 SVP: 6 DLU: 86

055 OCCUPATIONS IN ANTHROPOLOGY

This group includes occupations concerned with research to determine
igin and development of the human race by comparing physical charact
of fossilized human remains with those of existing racial groups; and r
in the cultural and social development of civilization from data previou
corded or from the study of relics and ruins encountered in excavations.

055.067-010 ANTHROPOLOGIST (profess. & kin.)
Makes comparative studies in relations to distribution, origin, evolutio
races of humans, cultures they have created, and their distribution and p
characteristics: Gathers, analyzes, and reports data on human physique,
customs, and artifacts, such as weapons, tools, pottery, and clothing. May
anthropological data and techniques to solution of problems in human re
in fields, such as industrial relations, race and ethnic relations, social wo
litical administration, education, public health, and programs inv
transcultural or foreign relations. May specialize in application of ant
logical concepts to current problems and be designated Applied Anthrop
(profess. & kin.). May specialize in study of relationships between la
and culture and socialinguistic studies and be designated Anthropologic
guist (profess. & kin.); or in study of relationship between individual pe
ity and culture and be designated Psychological Anthropologist (prof
kin.); or in study of complex, industrialized societies and be designated
Anthropologist (profess. & kin.).
GOE: 11.03.03 STRENGTH: L GED: R6 M5 L5 SVP: 7 DLU: 77

055.067-014 ANTHROPOLOGIST, PHYSICAL (profess. & kin.)
Studies meanings and causes of human physical differences and interr
effects of culture, heredity, and environment on human form: Studies h

fossils and their meaning in terms of long-range human evolution. Observes and measures bodily variations and physical attributes of existing human types. Studies physical and physiological adaptations to differing environments and hereditary characteristics of living populations. Studies growth patterns, sexual differences, and aging phenomena of human groups, current and past. May study museum collections of skeletal remains. May specialize in measurement of body or skeleton and be designated Anthropometrist (profess. & kin.). May specialize in epidemiology and nutritional studies, especially in developing or preliterate societies, and be designated Medical Anthropologist (profess. & kin.).
GOE: 02.02.01 STRENGTH: L GED: R6 M5 L5 SVP: 7 DLU: 77

055.067-018 ARCHEOLOGIST (profess. & kin.)

Reconstructs record of extinct cultures, especially preliterate cultures: Studies, classifies, and interprets artifacts, architectural features, and types of structures recovered by excavation in order to determine age and cultural identity. Establishes chronological sequence of development of each culture from simpler to more advanced levels. May specialize in study of literate periods of major civilizations in Near and Middle East and be designated Archeologist, Classical (profess. & kin.). May specialize in study of past Columbian history of the Americas and be designated Historical Archeologist (profess. & kin.).
GOE: 11.03.03 STRENGTH: L GED: R6 M5 L5 SVP: 7 DLU: 77

055.067-022 ETHNOLOGIST (profess. & kin.)

Makes comparative studies of cultures or of selected aspects of cultures of living peoples and of peoples no longer in existence in order to determine historical relations, arrive at typological classifications, and make generalizations concerning cultural process and human behavior: Studies cultures of societies, particularly preindustrial and non Western societies, including social and political organization, religion, economics, mythology and traditions, and intellectual and artistic life. May formulate general laws of cultural development, general rules of social and cultural behavior, or general value orientations. May specialize in description of details of custom and belief and their interrelations in one culture at a time and be designated Ethnographer (profess. & kin.).
GOE: 11.03.03 STRENGTH: L GED: R6 M5 L5 SVP: 7 DLU: 77

055.381-010 CONSERVATOR, ARTIFACTS (profess. & kin.) alternate titles: preservationist

Cleans, restores, and preserves archeological specimens and historical artifacts according to accepted chemical and physical techniques and training in archeological science: Cleans and repairs or reinforces specimens, such as weapons, mummified remains, and pottery, using handtools and prescribed chemical agents. Restores artifacts by polishing, joining together broken fragments, or other procedures, using handtools, power tools, and acid, chemical, or electrolytic corrosion-removal baths. Treats specimens to prevent or minimize deterioriation, according to accepted procedures. Records treatment of each artifact. Prepares reports of activities. May plan and conduct research to improve methods of restoring and preserving specimen.
GOE: 01.06.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

059 OCCUPATIONS IN SOCIAL SCIENCES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with the application of the theoretical or practical aspects of social sciences.

059.067-010 PHILOLOGIST (profess. & kin.)

Studies structure and development of specific language or language group: Traces origin and evolution of words and syntax through comparative analysis of ancient parent languages and modern language groups, studying word and structural characteristics, such as morphology, semantics, phonology, accent, grammar, and literature. Identifies and classifies obscure languages, both ancient and modern, according to family and origin. Reconstructs and deciphers ancient languages from examples found in archeological remains of past civilizations. May specialize in study of origin, history, and development of words and be designated Etymologist (profess. & kin.).
GOE: 11.03.02 STRENGTH: S GED: R5 M1 L5 SVP: 8 DLU: 77

059.067-014 SCIENTIFIC LINGUIST (profess. & kin.) alternate titles: linguist

Studies components, structure, and relationships within specified language to provide comprehension of its social functioning: Prepares description of sounds, forms, and vocabulary of language. Contributes to development of linguistic theory. Applies linguistic theory to any of following areas: development of improved methods in translation, including computerization; teaching of language to other than native speakers; preparation of language-teaching materials, dictionaries, and handbooks; reducing previously unwritten languages to standardized written form; preparation of literacy materials; preparation of tests for language-learning aptitudes and language proficiency; consultation with government agencies regarding language programs; or preparation of descriptions of comparative languages to facilitate improvement of teaching and translation.
GOE: 11.03.02 STRENGTH: S GED: R6 M5 L6 SVP: 8 DLU: 77

059.167-010 INTELLIGENCE RESEARCH SPECIALIST (profess. & kin.)

Plans and directs research into proposed problem solutions or courses of action to determine feasibility of military planning alternatives: Confers with military leaders and supporting personnel to determine dimensions of problem and discuss proposals for solution. Develops plans for predicting such factors as cost and probable success of each alternative, according to accepted operations research techniques and mathematical or computer formulations. Evaluates results of research and prepares recommendations for implementing or rejecting proposed solutions or plans. May be designated according to nature of research conducted as Air Intelligence Specialist (profess. & kin.); Combat Operations Research Specialist (profess. & kin.).
GOE: 11.03.02 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

059.267-010 INTELLIGENCE SPECIALIST (government ser.)

Evaluates data concerning subversive activities, enemy propaganda, and military or political conditions in foreign countries to facilitate counteraction by United States, according to familiarity with geography, cultural traditions, and social, political, and economic structure of countries under consideration.
GOE: 11.03.02 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

059.267-014 INTELLIGENCE SPECIALIST (military ser.)

Collects, records, analyzes, and disseminates tactical, strategic, or technical intelligence information: Segregates and records incoming intelligence data according to type of data to facilitate comparison, study, and accessibility. Prepares and analyzes information concerning strength, equipment, location, disposition, organization, and movement of enemy forces. Assists intelligence officers in analysis and selection of aerial bombardment targets. Compiles intelligence information to be used in preparing situation maps, charts, visual aids, briefing papers, reports, and publications. Briefs and debriefs ground or aviation personnel prior to and after missions. Maintains intelligence libraries, including maps, charts, documents, and other items. Plans or assists superiors in planning and supervising intelligence activities of unit assigned. May examine source materials and compile terrain intelligence, such as condition of travel routes over land, port facilities, and sources of water, sand, gravel, rock, and timbers.
GOE: 04.01.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

07 OCCUPATIONS IN MEDICINE AND HEALTH

This division includes occupations concerned with the health care of humans or animals in the fields of medicine, surgery, and dentistry; and in related patient-care areas, such as nursing, therapy, dietetics, prosthetics, rehabilitation, diagnostic imaging, and pharmacy. Also includeed are occupations in sanitation, environmental and public health, and in laboratories and other health facilities. Many occupations in this category require licensing or registration to practice or use a specific title.

070 PHYSICIANS AND SURGEONS

This group includes occupations concerned with diagnosis, prevention, and treatment of diseases and injuries; and research in the causes, transmission, and control of diseases and other ailments.

070.061-010 PATHOLOGIST (medical ser.) alternate titles: medical pathologist

Studies nature, cause, and development of diseases, and structural and functional changes caused by them: Diagnoses, from body tissue, fluids, secretions, and other specimens, presence and stage of disease, utilizing laboratory procedures. Acts as consultant to other medical practitioners. Performs autopsies to determine nature and extent of disease, cause of death, and effects of treatment. May direct activities of pathology department in medical school, hospital, clinic, medical examiner's office, or research institute. May be designated according to specialty as Clinical Pathologist (medical ser.); Forensic Pathologist (medical ser.); Neuropathologist (medical ser.); Surgical Pathologist (medical ser.).
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-010 ANESTHESIOLOGIST (medical ser.)

Administers anesthetics to render patients insensible to pain during surgical, obstetrical, and other medical procedures: Examines patient to determine degree of surgical risk, and type of anesthetic and sedation to administer, and discusses findings with medical practitioner concerned with case. Positions patient on operating table and administers local, intravenous, spinal, caudal, or other anesthetic according to prescribed medical standards. Institutes remedial measures to counteract adverse reactions or complications. Records type and amount of anesthetic and sedation administered and condition of patient before, during, and after anesthesia. May instruct medical students and other personnel in characteristics and methods of administering various types of anesthetics, signs and symptoms of reactions and complications, and emergency measures to employ.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-014 CARDIOLOGIST (medical ser.) alternate titles: heart specialist

Diagnoses and treats diseases of heart and its functions: Examines patient for symptoms indicative of heart disorders, using medical instruments and equipment. Studies diagnostic images and electrocardiograph recordings to aid in making diagnoses. Prescribes medications, and recommends dietary and activity program, as indicated. Refers patient to SURGEON (medical ser.) 070.101-094 specializing in cardiac cases when need for corrective surgery is indicated. May engage in research to study anatomy of and diseases peculiar to heart.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 9 DLU: 87

070.101-018 DERMATOLOGIST (medical ser.) alternate titles: skin specialist

Diagnoses and treats diseases of human skin: Examines skin to determine nature of disease, taking blood samples and smears from affected areas, and performing other laboratory procedures. Examines specimens under microscope, and makes various chemical and biological analyses and performs other tests to identify disease-causing organisms or pathological conditions. Prescribes and administers medications, and applies superficial radiotherapy and other localized treatments. Treats abscesses, skin injuries, and other skin infections, and surgically excises cutaneous malignancies, cysts, birthmarks, and other growths. Treats scars, using dermabrasion.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-022 GENERAL PRACTITIONER (medical ser.) alternate titles: physician, general practice

Diagnoses and treats variety of diseases and injuries in general practice: Examines patients, using medical instruments and equipment. Orders or executes various tests, analyses, and diagnostic images to provide information on patient's condition. Analyzes reports and findings of tests and of examination, and diagnoses condition. Administers or prescribes treatments and drugs. Inoculates and vaccinates patients to immunize patients from communicable diseases. Advises patients concerning diet, hygiene, and methods for prevention of disease. Provides prenatal care to pregnant women, delivers babies, and provides postnatal care to mother and infant [OBSTETRICIAN (medical ser.) 070.101-054]. Reports births, deaths, and outbreak of contagious diseases to governmental authorities. Refers patients to medical specialist or other practitioner for specialized treatment. Performs minor surgery. May make house and emergency calls to attend to patients unable to visit office or clinic. May conduct physical examinations to provide information needed for admission to school, consideration for jobs, or eligibility for insurance coverage. May provide care for passengers and crew aboard ship and be designated Ship's Doctor (medical ser.).
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-026 FAMILY PRACTITIONER (medical ser.) alternate titles: family physician

Provides comprehensive medical services for members of family, regardless of age or sex, on continuing basis: Examines patients, using medical instruments and equipment. Elicits and records information about patient's medical history. Orders or executes various tests, analyses, and diagnostic images to provide information on patient's condition. Analyzes reports and findings of tests and examination, and diagnoses condition of patient. Administers or prescribes treatments and medications. Promotes health by advising patients concerning diet, hygiene, and methods for prevention of disease. Innoculates and vaccinates patients to immunize patients from communicable diseases. Provides prenatal care to pregnant women, delivers babies, and provides postnatal care to mothers and infants [OBSTETRICIAN (medical ser.) 070.101-054]. Performs surgical procedures commensurate with surgical competency. Refers patients to medical specialist for consultant services when necessary for patient's well-being.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 90

070.101-034 GYNECOLOGIST (medical ser.)

Diagnoses and treats diseases and disorders of female genital, urinary, and rectal organs: Examines patient to determine medical problem, utilizing physical findings, diagnostic images, laboratory test results, and patient's statements as diagnostic aids. Discusses problem with patient, and prescribes medication and exercise or hygiene regimen, or performs surgery as needed to correct malfunctions or remove diseased organ. May care for patient throughout pregnancy and deliver babies [OBSTETRICIAN (medical ser.) 070.101-054].
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-042 INTERNIST (medical ser.) alternate titles: internal medicine specialist

Diagnoses and treats diseases and injuries of human internal organ systems: Examines patient for symptoms of organic or congenital disorders and determines nature and extent of injury or disorder, referring to diagnostic images and tests, and using medical instruments and equipment. Prescribes medication and recommends dietary and activity program, as indicated by diagnosis. Refers patient to medical specialist when indicated.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-046 PUBLIC HEALTH PHYSICIAN (government ser.)

Plans and participates in medical care or research program in hospital, clinic, or other public medical facility: Provides medical care for eligible persons, and institutes program of preventive health care in county, city, or other government or civic division. Gives vaccinations, imposes quarantines, and establishes standards for hospitals, restaurants, and other areas of possible danger. May conduct research in particular areas of medicine to aid in cure and control of disease. May be designated Medical Officer (government ser.).
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 90

070.101-050 NEUROLOGIST (medical ser.) alternate titles: nerve specialist

Diagnoses and treats organic diseases and disorders of nervous system: Orders and studies results of chemical, microscopic, biological, and bacteriological analyses of patient's blood and cerebro-spinal fluid to determine nature and extent of disease or disorder. Identifies presence of pathological blood conditions or parasites and prescribes and administers medications and drugs. Orders and studies results of electroencephalograms or x rays to detect abnormaliti brain wave patterns, or indications of abnormalities in brain structure. Ac patient to contact other medical specialist, as indicated.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-054 OBSTETRICIAN (medical ser.)

Treats women during prenatal, natal, and postnatal periods: Examines pa to ascertain condition, utilizing physical findings, laboratory results, an tient's statements as diagnostic aids. Determines need for modified diet physical activities, and recommends plan. Periodically examines patient, scribing medication or surgery, if indicated. Delivers infant, and cares for er for prescribed period of time following childbirth. Performs cesarean se or other surgical procedure as needed to preserve patient's health and de infant safely. May treat patients for diseases of generative organs [GY COLOGIST (medical ser.) 070.101-034].
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-058 OPHTHALMOLOGIST (medical ser.) alternate titles: specialist; oculist

Diagnoses and treats diseases and injuries of eyes: Examines patien symptoms indicative of organic or congenital ocular disorders, and determ nature and extent of injury or disorder. Performs various tests to determin sion loss. Prescribes and administers medications, and performs surgery, if cated. Directs remedial activities to aid in regaining vision, or to utilize remaining, by writing prescriptions for corrective glasses, and instructing tient in eye exercises.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-062 OTOLARYNGOLOGIST (medical ser.) alternate ti otorhinolaryngologist

Diagnoses and treats diseases of ear, nose, and throat: Examines affecte gans, using equipment such as audiometers, prisms, nasoscopes, microsc x-ray machines, and fluoroscopes. Determines nature and extent of diso and prescribes and administers medications, or performs surgery. Performs to determine extent of loss of hearing due to aural or other injury, and sp loss as result of diseases or injuries to larynx. May specialize in treating th ear, or nose and be designated Laryngologist (medical ser.); Otologist (me ser.); Rhinologist (medical ser.).
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 9 DLU: 87

070.101-066 PEDIATRICIAN (medical ser.)

Plans and carries out medical care program for children from birth thro adolescence to aid in mental and physical growth and development: Exam patients to determine presence of disease and to establish preventive he practices. Determines nature and extent of disease or injury, prescribes and ministers medications and immunizations, and performs variety of medical ties.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-070 PHYSIATRIST (medical ser.) alternate titles: physical me cine specialist

Specializes in clinical and diagnostic use of physical agents and exercise provide physiotherapy for physical, mental, and occupational rehabilitatio patients: Examines patient, utilizing electrodiagnosis and other diagnostic pr dures to determine need for and extent of therapy. Prescribes and administ treatment, using therapeutic methods and procedures, such as light therapy, thermy, hydrotherapy, iontophoresis, and cryotherapy. Instructs PHYSIC THERAPIST (medical ser.) 076.121-014 and other personnel in nature and ration or dosage of treatment, and determines that treatments are administe as specified. Prescribes exercises designed to develop functions of specific a tomical parts or specific muscle groups. Recommends occupational therapy tivities for patients with extended convalescent periods and for those whose d ability requires change of occupation.
GOE: 02.03.01 STRENGTH: M GED: R6 M5 L6 SVP: 8 DLU: 90

070.101-078 PHYSICIAN, OCCUPATIONAL (medical ser.) alternate tles: company doctor; physician, industrial

Diagnoses and treats work-related illnesses and injuries of employees, a conducts fitness-for-duty physical examinations: Attends patients in plant hospital, and reexamines disability cases periodically to verify progress. Ov sees maintenance of case histories, health examination reports, and other me cal records. Formulates and administers health programs. Inspects plant a makes recommendations regarding sanitation and elimination of health hazard
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 90

070.101-082 POLICE SURGEON (government ser.) alternate titles: su geon, chief

Examines and treats members of municipal police force for duty-related inj ries and illnesses and gives first-aid treatment to civilians under arrest: Exa ines and reports physical condition of applicants for police force. Maintai records of sick personnel. Examines officers who claim disability and, up proof of such disability, issues required certificate. Reports charges against of cers who feign illness or injury to evade duty or whose illness or injury resu from improper conduct, intemperance, or habits. Prepares annual report on a tivities and evaluation of physical condition of police force.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 90

070.101-086 PROCTOLOGIST (medical ser.)

Diagnoses and treats diseases and disorders of anus, rectum, and colon: Dia noses diseases and disorders utilizing techniques, such as discussion of sym

toms and medical history with patient, instrumental inspection of rectum and colon, examination of diagnostic images of affected parts, and evaluation of laboratory test results. Treats diseases and disorders by surgical removal or repair of diseased or malfunctioning parts, or by prescription of medication and suggestions for adaptation of patient's living habits.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-090 RADIOLOGIST (medical ser.)
Diagnoses and treats diseases of human body, using x-ray and radioactive substances: Examines internal structures and functions of organ systems, making diagnoses after correlation of x-ray findings with other examinations and tests. Treats benign and malignant internal and external growths by exposure to radiation from x-rays, high energy sources, and natural and manmade radioisotopes directed at or implanted in affected areas of body. Administers radiopaque substances by injection, orally, or as enemas to render internal structures and organs visible on x-ray films or fluoroscopic screens. May specialize in diagnostic radiology or radiation oncology. May diagnose and treat diseases of human body, using radioactive substances, and be certified in Nuclear Radiology or Nuclear Medicine.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 87

070.101-094 SURGEON (medical ser.)
Performs surgery to correct deformities, repair injuries, prevent diseases, and improve function in patients: Examines patient to verify necessity of operation, estimate possible risk to patient, and determine best operational procedure. Reviews reports of patient's general physical condition, reactions to medications, and medical history. Examines instruments, equipment, and surgical setup to ensure that antiseptic and aseptic methods have been followed. Performs operations, using variety of surgical instruments and employing established surgical techniques appropriate for specific procedures. May specialize in particular type of operation, as on nervous system, and be designated Neurosurgeon (medical ser). May specialize in repair, restoration, or improvement of lost, injured, defective, or misshapen body parts and be designated Plastic Surgeon (medical ser.). May specialize in correction or prevention of skeletal abnormalities, utilizing surgical, medical, and physical methodologies, and be designated Orthopedic Surgeon (medical ser.).
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 9 DLU: 88

070.101-098 UROLOGIST (medical ser.)
Diagnoses and treats diseases and disorders of genitourinary organs and tract: Examines patient, using x-ray machine, fluoroscope, and other equipment to aid in determining nature and extent of disorder or injury. Treats patient, using diathermy machine, catheter, cystoscope, radium emanation tube, and similar equipment. Performs surgery, as indicated. Prescribes and administers urinary antiseptics to combat infection.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 9 DLU: 88

070.101-102 ALLERGIST-IMMUNOLOGIST (medical ser.) alternate titles: allergist; allergy specialist
Diagnoses and treats diseases and conditions with allergic or immunologic causes: Examines patient, utilizing medical instruments and equipment, patch tests, and blood tests as diagnostic aids. Elicits and records information about patient's history. Analyses reports and test results and prescribes treatment or medication for conditions, such as bronchial asthma, dermatological disorders, connective tissue syndromes, transplantation, and autoimmunity. Refers patients to ancillary and consultant services when indicated.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 9 DLU: 88

070.107-014 PSYCHIATRIST (medical ser.)
Diagnoses and treats patients with mental, emotional, and behavioral disorders: Organizes data concerning patient's family, medical history, and onset of symptoms obtained from patient, relatives, and other sources, such as NURSE, GENERAL DUTY (medical ser.) 075.364-010 and SOCIAL WORKER, PSYCHIATRIC (profess. & kin.) 195.107-034. Examines patient to determine general physical condition, following standard medical procedures. Orders laboratory and other special diagnostic tests and evaluates data obtained. Determines nature and extent of mental disorder, and formulates treatment program. Treats or directs treatment of patient, utilizing variety of psychotherapeutic methods and medications.
GOE: 02.03.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 88

071 OSTEOPATHS

This group includes occupations concerned with the application of manipulative procedures in treating patients, in addition to the other accepted methods of medical care. Includes diagnosis, prevention, and treatment of diseases and injuries; research in the causes, transmission, and control of disease and other ailments.

071.101-010 OSTEOPATHIC PHYSICIAN (medical ser.) alternate titles: doctor, osteopathic; osteopath
Diagnoses and treats diseases and injuries of human body, relying upon accepted medical and surgical modalities: Examines patient to determine symptoms attributable to impairments in musculoskeletal system. Corrects disorders and afflictions of bones, muscles, nerves, and other body systems by medicinal and surgical procedures and, when deemed beneficial, manipulative therapy. Employs diagnostic images, drugs, and other aids to diagnose and treat bodily impairments. May practice medical or surgical speciality.
GOE: 02.03.01 STRENGTH: M GED: R6 M5 L6 SVP: 8 DLU: 89

072 DENTISTS

This group includes occupations concerned with examination, diagnosis, prevention, and treatment of ailments or abnormalities of gums ,jaws, soft tissue, and teeth. Includes oral surgery.

072.061-010 ORAL PATHOLOGIST (medical ser.)
Studies nature, cause, and development of diseases associated with mouth: Examines patient's mouth, jaw, face, and associated areas and obtains specimen, using medical instruments. Examines specimen from patient's mouth or associated area to determine pathological conditions, such as tumors and lesions, using microscope and other laboratory equipment and applying knowledge of medical pathology and dentistry. Discusses diagnosis with patient and referring practitioner.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.101-010 DENTIST (medical ser.)
Diagnoses and treats diseases, injuries, and malformations of teeth and gums, and related oral structures: Examines patient to determine nature of condition, utilizing x rays, dental instruments, and other diagnostic procedures. Cleans, fills, extracts, and replaces teeth, using rotary and hand instruments, dental appliances, medications, and surgical implements. Provides preventive dental services to patient, such as applications of fluoride and sealants to teeth, and education in oral and dental hygiene.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.101-014 ENDODONTIST (medical ser.)
Examines, diagnoses, and treats diseases of nerve, pulp, and other dental tissues affecting vitality of teeth: Examines teeth, gums, and related tissues to determine condition, using dental instruments, x ray, and other diagnostic equipment. Diagnoses condition and plans treatment. Treats exposure of pulp by pulp capping or removal of pulp from pulp chamber and root canal, using dental instruments. Performs partial or total removal of pulp, using surgical instruments. Treats infected root canal and related tissues, and fills pulp chamber and canal with endodontic materials. Removes pathologic tissue at apex of tooth, surgically. Reinserts teeth that have been knocked out of mouth by accident. Bleaches discolored teeth to restore natural color.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.101-018 ORAL AND MAXILLOFACIAL SURGEON (medical ser.) alternate titles: oral surgeon
Performs surgery on mouth, jaws, and related head and neck structures: Executes difficult and multiple extraction of teeth. Removes tumors and other abnormal growths. Performs preprosthetic surgery to prepare mouth for insertion of dental prosthesis. Corrects abnormal jaw relations by mandibular or maxillary revision. Treats fractures of jaws. Administers general and local anesthetics. May treat patients in hospital.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.101-022 ORTHODONTIST (medical ser.)
Examines, diagnoses, and treats abnormalities in development of jaws, position of teeth, and other dental-facial structures: Plans treatment, using cephalometric, height, and weight records, dental x rays, and front and lateral dental photographs. Designs and fabricates appliances, such as space maintainers, retainers, and labial and lingual arch wires, to alter position and relationship of teeth and jaws, and to realign teeth to produce and maintain normal function.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.101-026 PEDIATRIC DENTIST (medical ser.) alternate titles: pedodontist
Provides dental care for infants, children, and adolescents: Fabricates space maintainers designed for patients. Treats primary and secondary teeth and constructs and places bridges, dentures, and obturating appliances suitable for growing arches. Manages patients with behavioral problems or handicapping conditions. Counsels and advises patients and family on growth and development dental problems of patient. Provides preventive services through use of fluorides and sealants and instructs patient and family members on dental care.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 88

072.101-030 PERIODONTIST (medical ser.)
Diagnoses and treats inflammatory and destructive diseases of investing and supporting tissue of teeth: Cleans and polishes teeth, eliminates irritating margins of fillings, and corrects occlusions. Performs surgical procedures to remove diseased tissue, using dental instruments. Establishes recall treatment program to monitor oral health practices.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.101-034 PROSTHODONTIST (medical ser.) alternate titles: prosthetic dentist
Restores and maintains oral functions: Records physiologic position of jaws to determine shape and size of dental prostheses, using face bows, dental articulators, and other recording devices. Replaces missing teeth and associated oral structures with artificial teeth to improve chewing, speech, and appearance. Corrects natural and acquired deformation of mouth and jaws through use of prosthetic appliances.

GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.101-038 PUBLIC-HEALTH DENTIST (government ser.)
Plans, organizes, and maintains dental health program of public health agency: Analyzes dental needs of community to determine changes and trends in patterns of dental disease. Instructs community, school, and other groups on preventive oral health care services. Produces and evaluates dental health educational materials. Provides clinical and laboratory dental care and services. Instigates methods for evaluating changes in dental health status and needs of community.
GOE: 02.03.02 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 89

072.117-010 DIRECTOR, DENTAL SERVICES (medical ser.)
Administers dental program in hospital and directs departmental activities in accordance with accepted national standards and administrative policies: Confers with hospital administrators to formulate policies and recommend procedural changes. Establishes training program to advance knowledge and clinical skill levels of resident dentists studying for dental specializations. Implements procedures for hiring of professional staff and approves hiring and promotion of staff members. Establishes work schedules and assigns staff members to duty stations to maximize efficient use of staff. Observes and assists staff members at work to ensure safe and ethical practices and to solve problems and demonstrate techniques. Confers with hospital administrator to submit budget and statistical reports used to justify expenditures for equipment, supplies, and personnel.
GOE: 02.03.02 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 89

073 VETERINARIANS

This group includes occupations concerned with diagnosis, prevention, and treatment of animal disorders. Includes occupations in veterinary bacteriology, epidemiology, virology, pathology, and pharmacology.

073.061-010 VETERINARIAN, LABORATORY ANIMAL CARE (medical ser.)
Examines, diagnoses, and treats diseases of laboratory animals to ensure health of animals used in scientific research and to comply with regulations governing their humane and ethical treatment: Examines animals to detect indications of disease or injury, and treats animals when indications are found, to prevent spread of disease to other animals or workers. Discusses research projects with associates to plan procedures and selects animals for specific research based on knowledge of species and research principles and techniques. Participates in research projects. Oversees activities concerned with feeding, care, and maintenance of animal quarters to ensure compliance with laboratory regulations.
GOE: 02.02.01 STRENGTH: M GED: R6 M4 L5 SVP: 8 DLU: 89

073.061-014 VETERINARY ANATOMIST (profess. & kin.)
Studies form and structure of animals, both gross and microscopic. Required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

073.061-018 VETERINARY MICROBIOLOGIST (profess. & kin.)
Studies biology, ecology, etiology, bacteriology, virology, and immunology of micro-organisms causing diseases in animals: Prepares laboratory cultures of micro-organisms taken from body fluids and tissues of diseased animals and identifies them by microscopic examination and bacteriological tests. Tests virulence of pathogenic organisms by observing effects of inoculations on laboratory and other animals. Investigates efficiency of vaccines, antigens, antibiotics, and other materials in prevention, diagnosis, and control of animal diseases. May specialize in bacteria causing animal diseases and be known as Veterinary Bacteriologist (profess. & kin.). May specialize in study of viruses and rickettsiae and be known as Veterinary Virologist (profess. & kin.). May be required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.02.01 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 88

073.061-022 VETERINARY EPIDEMIOLOGIST (profess. & kin.)
Studies factors influencing existence and spread of diseases among humans and animals, particularly those diseases transmissible from animals to humans. Required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

073.061-026 VETERINARY PARASITOLOGIST (profess. & kin.)
Studies animal parasites that attack domestic animals and poultry: Conducts research to determine control and preventive measures, utilizing chemicals, heat, electricity, and other methods. Required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

073.061-030 VETERINARY PATHOLOGIST (medical ser.) alternate titles: clinical veterinarian
Studies nature, cause, and development of animal diseases, and structural and functional changes resulting from them: Conducts tests, performs biopsies, and analyzes body tissue, fluids and other specimens to diagnose presence and stage of disease in animals, and probable source of contamination or infection. Conducts further research to expand scope of findings, or recommends treatment to consulting veterinary personnel. May direct activities of veterinary pathology department in educational institution or industrial establishment.
GOE: 02.02.01 STRENGTH: M GED: R6 M5 L5 SVP: 8 DLU: 88

073.061-034 VETERINARY PHARMACOLOGIST (profess. & kin.)
Studies drugs, including materia medica and therapeutics, as related to veterinary medicine. Required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.02.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

073.061-038 VETERINARY PHYSIOLOGIST (profess. & kin.)
Studies function and mechanism of systems and organs in healthy and diseased animals. Required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

073.101-010 VETERINARIAN (medical ser.)
Diagnoses, and treats diseases and injuries of pets, such as dogs and cats, and farm animals, such as cattle or sheep: Examines animal to determine nature of disease or injury and treats animal surgically or medically. Tests dairy herds, horses, sheep, and other animals for diseases and inoculates animals against rabies, brucellosis, and other disorders. Advises animal owners about sanitary measures, feeding, and general care to promote health of animals. May engage in research, teaching, or production of commercial products. May specialize in prevention and control of communicable animal diseases and be designated Veterinarian, Public Health (government ser.). May specialize in diagnosis and treatment of animal diseases, using roentgen rays and radioactive substances, and be designated Veterinary Radiologist (medical ser.).
GOE: 02.03.03 STRENGTH: M GED: R5 M4 L5 SVP: 8 DLU: 88

073.101-014 VETERINARIAN, POULTRY (agriculture)
Advises individual poultry raisers on poultry problems: Gathers from owner information on care, condition, performance, and action of birds. Inspects flocks, pens, and housing. Diagnoses disease and prescribes treatment. Culls undesirable birds from flock. Suggests feed changes to increase egg production or growth of fowls.
GOE: 02.03.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

073.101-018 ZOO VETERINARIAN (medical ser.)
Plans, directs, and participates in health care program of veterinary clinic in zoo: Establishes and conducts effective quarantine and testing procedures for all incoming animals to ensure health of collection, prevent spread of disease, and comply with government regulations. Conducts regularly scheduled immunization and preventive care programs to maintain health of animals and guard against communicable diseases. Provides immediate medical attention to diseased or traumatized animals. Participates with other personnel in planning and executing nutrition and reproduction programs for animals in zoo. Develops special programs to encourage reproduction among animals designated as endangered species, based on knowledge of native habitat and instincts. Participates in employee training in handling and care of animals. Conducts postmortem studies and analyses. Cooperates with zoo and aquarium personnel to exchange information concerning care of animals, to arrange transfer, sale, or trade of animals, and to maintain nationwide inventory of animals of every species, including notation of live births. Acts as consultant to veterinarians in general practice seeking advice in treatment of exotic animals.
GOE: 02.03.03 STRENGTH: M GED: R6 M5 L6 SVP: 8 DLU: 89

073.161-010 VETERINARY LIVESTOCK INSPECTOR (government ser.)
Inspects animals for presence of disease: Performs standard clinical tests and submits specimens of tissues and other parts for laboratory analysis. Reports existence of disease conditions to state and federal authorities. Advises livestock owners of economic aspects of disease eradication and advises consumers of public health implications of diseases transmissible from animals to humans. May institute and enforce quarantine or other regulations governing import, export, and interstate movement of livestock. Required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.03.03 STRENGTH: M GED: R5 M4 L4 SVP: 7 DLU: 77

073.261-010 VETERINARY VIRUS-SERUM INSPECTOR (government ser.)
Inspects establishments where serums, toxins, and similar products, used in treatment of animals, are manufactured to enforce state or federal standards of sanitation, purity, labeling, and storage. Examines animals used in production process to determine if diseases are present. Inspects production areas to determine that standards of sanitation are being maintained. Required to hold degree of Doctor of Veterinary Medicine.
GOE: 02.03.03 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

073.264-010 VETERINARY MEAT-INSPECTOR (government ser.) alternate titles: veterinary medical officer
Inspects establishments engaged in slaughtering livestock and processing meat intended for intrastate, interstate, and foreign shipment to enforce municipal, state, or federal standards: Examines animal and carcass before and after slaughtering to detect evidence of disease or other abnormal conditions. Determines that ingredients used in processing and marketing meat and meat products comply with standards of purity and grading, and that products are not adulterated or misbranded. Inspects processing areas to ensure sanitary conditions are maintained. Required to hold degree of Doctor of Veterinary Medicine. May specialize in inspecting establishments engaged in processing milk and milk products and be designated Veterinary Milk Specialist (government ser.); or inspecting establishments engaged in processing poultry and edible poultry products and be designated Veterinary-Poultry Inspector (government ser.).

GOE: 02.03.03 STRENGTH: M GED: R5 M4 L5 SVP: 8 DLU: 78

074 PHARMACISTS

This group includes occupations concerned with compounding prescriptions of physicians, dentists, and other practitioners; and the bulk selection, compounding, dispensing, and preservation of drugs and medicines.

074.161-010 PHARMACIST (medical ser.) alternate titles: druggist

Compounds and dispenses prescribed medications, drugs, and other pharmaceuticals for patient care, according to professional standards and state and federal legal requirements: Reviews prescriptions issued by physician, or other authorized prescriber to assure accuracy and determine formulas and ingredients needed. Compounds medications, using standard formulas and processes, such as weighing, measuring, and mixing ingredients. Directs pharmacy workers engaged in mixing, packaging, and labeling pharmaceuticals. Answers questions and provides information to pharmacy customers on drug interactions, side effects, dosage and storage of pharmaceuticals. Maintains established procedures concerning quality assurance, security of controlled substances, and disposal of hazardous waste drugs. Enters data, such as patient name, prescribed medication and cost, to maintain pharmacy files, charge system, and inventory. May assay medications to determine identity, purity, and strength. May instruct interns and other medical personnel on matters pertaining to pharmacy, or teach in college of pharmacy. May work in hospital pharmacy and be designated Pharmacist, Hospital (medical ser.)
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 87

074.161-014 RADIOPHARMACIST (medical ser.)

Prepares and dispenses radioactive pharmaceuticals used for patient diagnosis and therapy, applying principles and practices of pharmacy and radiochemistry: Receives radiopharmaceutical prescription from physician and reviews prescription to determine suitability of radiopharmaceutical for intended use. Verifies that specified radioactive substance and reagent will give desired results in examination or treatment procedures, utilizing knowledge of radiopharmaceutical preparation and principles of drug biodistribution. Calculates volume of radioactive pharmaceutical required to provide patient with desired level of radioactivity at prescribed time, according to established rates of radioisotope decay. Compounds radioactive substances and reagents to prepare radiopharmaceutical, following radiopharmacy laboratory procedures. Assays prepared radiopharmaceutical, using measuring and analysis instruments and equipment, such as ionization chamber, pulse-height analyzer, and radioisotope dose calibrator, to verify rate of drug disintegration and to ensure that patient receives required dose. Consults with physician following patient treatment or procedure to review and evaluate quality and effectiveness of radiopharmaceutical. Conducts research to develop or improve radiopharmaceuticals. Prepares reports for regulatory agencies to obtain approval for testing and use of new radiopharmaceuticals. Maintains control records for receipt, storage, preparation, and disposal of radioactive nuclei. Occasionally conducts training for students and medical professionals concerning radiopharmacy use, characteristics, and compounding procedures.
GOE: 02.04.01 STRENGTH: L GED: R6 M5 L5 SVP: 7 DLU: 87

074.167-010 DIRECTOR, PHARMACY SERVICES (medical ser.)

Directs and coordinates, through subordinate supervisory personnel, activities and functions of hospital pharmacy: Plans and implements procedures in hospital pharmacy according to hospital policies and legal requirements. Directs pharmacy personnel programs, such as hiring, training, and intern programs. Confers with computer personnel to develop computer programs for pharmacy information management systems, patient and department charge systems, and inventory control. Analyzes records to indicate prescribing trends and excessive usage. Prepares pharmacy budget and department reports required by hospital administrators. Attends staff meetings to advise and inform hospital medical staff of drug applications and characteristics. Observes pharmacy personnel at work and develops quality assurance techniques to ensure safe, legal, and ethical practices. Oversees preparation and dispensation of experimental drugs.
GOE: 02.04.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 87

074.381-010 PHARMACIST ASSISTANT (military ser.)

Mixes and dispenses prescribed medicines and pharmaceutical preparations in absence of or under supervision of PHARMACIST (medical ser.): Compounds preparations according to prescriptions issued by medical, dental, or veterinary officers. Pours, weighs, or measures dosages and grinds, heats, filters, or dissolves and mixes liquid or soluble drugs and chemicals. Procures, stores, and issues pharmaceutical materials and supplies. Maintains files and records and submits required pharmacy reports.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

074.382-010 PHARMACY TECHNICIAN (medical ser.) alternate titles: pharmacy clerk

Performs any combination of following duties to assist PHARMACIST (medical ser.) 074.161-010 in hospital pharmacy or retail establishment: Mixes pharmaceutical preparations, fills bottles with prescribed tablets and capsules, and types labels for bottles. Assists PHARMACIST (medical ser.) to prepare and dispense medication. Receives and stores incoming supplies. Counts stock and enters data in computer to maintain inventory records. Processes records of medication and equipment dispensed to hospital patient, computes charges, and enters data in computer. Prepares intravenous (IV) packs, using sterile technique, under supervision of hospital pharmacist. Cleans equipment and sterilizes glassware according to prescribed methods.
GOE: 05.09.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 87

075 REGISTERED NURSES

This group includes occupations concerned with administering nursing care to the ill or injured. Includes nursing administration and instruction, and public health, industrial, private duty, and surgical nursing. Licensing or registration is required.

075.117-010 CONSULTANT, EDUCATIONAL, STATE BOARD OF NURSING (government ser.) alternate titles: director, educational board of nurse examiners

Directs activities concerned with maintaining educational standards established by board of nursing or other legally authorized agency: Participates in development and implementation of philosophy, purpose, policies, and plans of board of agency, and consults with and advises administrators of nursing schools in regard to curricula and facilities for instruction. Plans and conducts surveys of nursing schools and advises institutions desiring to establish schools on policies and procedures. Maintains current and comprehensive records and reports and keeps informed on trends and developments within the profession. May assist with administrative functions.
GOE: 11.07.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

075.117-014 DIRECTOR, COMMUNITY-HEALTH NURSING (medical ser.) alternate titles: director, public-health nursing

Administers nursing service in community health agency: Coordinates and evaluates nursing activities in agency to ensure balanced and adequate program, and to formulate progressive program designed to meet changing needs of community. Directs collection, analysis, and interpretation of statistics significant to program planning and budget preparation. Prepares and submits budget estimates for nursing activities. Participates in establishing programs for guidance and professional development of nursing staff, and in establishing personnel policies, qualifications, and salaries. Recruits, selects, and assigns personnel for nursing services. Plans nursing consulting services. Participates in community planning concerning health and social welfare problems. Consults with advisory committee in establishment of medical policies of community health agency.
GOE: 11.07.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

075.117-018 DIRECTOR, EDUCATIONAL, COMMUNITY-HEALTH NURSING (medical ser.) alternate titles: director, educational, public-health nursing

Plans and directs educational program for community health agency: Develops educational plans for in-service education and orientation of health personnel. Confers with supervisors and staff to ensure efficiency of program. Cooperates with nursing specialists and supervisors to organize educational programs for staff and community. Obtains educational materials for use in teaching and demonstrating nursing and other health related activities. Confers with administrative personnel to determine procedures and techniques for patient care and to implement new programs. Assists in selecting nursing candidates and in orienting new employees. Cooperates with nursing schools and colleges in providing supervised field instruction for students to gain work experience and observe nursing techniques. Conducts surveys and analyses to determine adequacy of educational materials and effectiveness of program.
GOE: 10.02.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

075.117-022 DIRECTOR, NURSING SERVICE (medical ser.)

Administers nursing program in hospital, nursing home, or other medical facility to maintain standards of patient care, and advises medical staff, department heads, and administrators in matters related to nursing service: Recommends establishment or revision of policies and develops organizational structure and standards of performance. Interprets policies and objectives of nursing service to staff and community groups. Promotes working relationships with community agencies and with other establishment departments. Assists in preparation of departmental budget. Establishes personnel qualification requirements, drafts procedure manuals, initiates in-service programs, installs record and reporting system, and performs other personnel management tasks. Initiates studies to evaluate effectiveness of nursing services in relation to their objectives and costs. May assist nursing schools with curricular problems.
GOE: 11.07.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

075.117-026 DIRECTOR, OCCUPATIONAL HEALTH NURSING (medical ser.) alternate titles: director, industrial nursing

Plans with management, medical director, and legal counsel scope and objectives of nursing service in industrial establishment, and directs nursing activities: Determines qualifications, duties, and responsibilities of nursing staff, and assists in selection. Arranges for orientation of newly appointed nursing staff in company policy and nursing procedures. Prepares and maintains nursing policy and procedure manual. Evaluates nursing service and assists in evaluation of total health service. Establishes system of records and reports. Advises management in development and maintenance of plant sanitation and housekeeping practices. Develops nursing procedures for emergency and followup care of occupational and nonoccupational injuries and illnesses. Provides for health counseling and health education on individual or group basis. Interprets nursing functions in interdepartmental planning and coordination of health and welfare benefit programs. May visit branches and subsidiaries of company periodically to evaluate nursing service.

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GOE: 11.07.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

075.117-030 DIRECTOR, SCHOOL OF NURSING (medical ser.) alternate titles: dean, school of nursing

Directs and administers educational program in school of nursing: Assists in preparation of budget, and administers program within budgetary limitations. Defines and interprets aims and policies of school. Interviews and appoints faculty and administrative staff. Participates in planning curriculums and schedule of instruction. Participates in establishing qualifications for faculty, staff, and students and in recruiting eligible candidates. Arranges with hospital and other institutions and agencies for students to use their facilities, under faculty supervision, for clinical experience. Maintains student records of educational experience and achievement. May arrange student living accommodations, and social and recreational opportunities. May advise institutions on educational problems.
GOE: 11.07.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

075.117-034 EXECUTIVE DIRECTOR, NURSES' ASSOCIATION (medical ser.) alternate titles: executive secretary, nurses' association

Administers program of professional nurses' association, as formulated by board of directors and association members: Participates in establishing objectives and policies of association, and interprets program to members and general public at general and professional meetings. Assists in organizing committees and aids in attaining objectives in such matters as legislation affecting nursing, employment conditions, health programs, and research designed to facilitate professional growth and efficiency. Publicizes program of association through various media.
GOE: 11.05.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

075.124-010 NURSE, SCHOOL (medical ser.)

Provides health care services to students: Plans school health program, in cooperation with medical authority and administrative school personnel. Participates in medical examinations and reviews findings to evaluate health status of pupils and progress of program. Instructs classes in subjects, such as child care, first aid, and home nursing, and establishes nursing policies to meet emergencies. Cooperates with school personnel in identifying and meeting social, emotional, and physical needs of school children. Administers immunizations, provides first-aid, and maintains health records of students. Counsels students in good health habits. Works with community agencies in planning facilities to meet needs of children outside school situation. May assist in program for care of handicapped children. May work in college and be designated Nurse, College (medical ser.).
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

075.124-014 NURSE, STAFF, COMMUNITY HEALTH (medical ser.) alternate titles: public-health nurse

Instructs individuals and families in health education and disease prevention in community health agency: Visits homes to determine patient and family needs, develops plan to meet needs, and provides nursing services. Instructs family in care and rehabilitation of patient, and in maintenance of health and prevention of disease for family members. Gives treatments to patient following physician's instructions. Assists community members and health field personnel to assess, plan for, and provide needed health and related services. Refers patients with social and emotional problems to other community agencies for assistance. Teaches home nursing, maternal and child care, and other subjects related to individual and community welfare. Participates in programs to safeguard health of children, including child health conferences, school health, group instruction for parents, and immunization programs. Assists in preparation of special studies and in research programs. Directs treatment of patient by NURSE, LICENSED PRACTICAL (medical ser.) 079.374-014 and HOME ATTENDANT (personal ser.) 354.377-014. Cooperates with families, community agencies, and medical personnel to arrange for convalescent and rehabilitative care of sick or injured persons. May specialize in one phase of community health nursing, such as clinical pediatrics or tuberculosis.
GOE: 10.02.01 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 77

075.124-018 NURSE, INSTRUCTOR (medical ser.)

Demonstrates and teaches patient care in classroom and clinical units to nursing students and instructs students in principles and application of physical, biological, and psychological subjects related to nursing: Lectures to students, conducts and supervises laboratory work, issues assignments, and directs seminars and panels. Supervises student nurses and demonstrates patient care in clinical units of hospital. Prepares and administers examinations, evaluates student progress, and maintains records of student classroom and clinical experience. Participates in planning curriculum, teaching schedule, and course outline. Cooperates with medical and nursing personnel in evaluating and improving teaching and nursing practices. May specialize in specific subject, such as anatomy, chemistry, psychology, or nutrition, or in type of nursing activity, such as nursing of medical or surgical patients. May conduct classes for patients in health practices and procedures.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

075.127-010 INSTRUCTOR, PSYCHIATRIC AIDE (education)

Provides clinical and academic instruction in psychiatric nursing methods and procedures for PSYCHIATRIC AIDES (medical ser.): Plans curricular content and sequence. Prepares schedules and arranges for lectures given by members of hospital staff, or prepares orientation course for psychiatric aide trainees. Prepares study material and presents lectures and demonstrations. Observes student progress, conducts examinations, and compiles records. Confers with students and evaluates performances at end of training course. Assists with assignment of students to units.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

075.127-014 NURSE, CONSULTANT (medical ser.)

Advises hospitals, schools of nursing, industrial organizations, and public health groups on problems related to nursing activities and health services: Reviews and suggests changes in nursing organization and administrative procedures. Analyzes nursing techniques and recommends modifications. Aids schools in planning nursing curriculums, and hospitals and public health nursing services in developing and carrying out staff education programs. Provides assistance in developing guides and manuals for specific aspects of nursing services. Prepares educational materials and assists in planning and developing health and educational programs for industrial and community groups. Advises in services available through community resources. Consults with nursing groups concerning professional and educational problems. Prepares or furnishes data for articles and lectures. Participates in surveys and research studies.
GOE: 10.02.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

075.127-026 NURSE, SUPERVISOR, COMMUNITY-HEALTH NURSING (medical ser.) alternate titles: supervisor, public-health nursing

Supervises and coordinates activities of nursing personnel in community health agency: Serves as liaison between staff and administrative personnel. Develops standards and procedures for providing nursing care and for evaluating service. Provides orientation, teaching, and guidance to staff to improve quality and quantity of service. Evaluates performance of personnel and interprets nursing standards to staff, advisory boards, nursing committees, and community groups. Recommends duty assignment of nursing personnel and coordinates services with other health and social agencies to render program more effective. Reviews, evaluates, and interprets nursing records, vital statistics, and other data affecting health service in order to assess community needs and to plan and implement programs to meet these needs. Assists in planning educational programs for nurses, related professional workers, and community groups to meet needs of personnel and practitioners. Assists in preparation of agency budget. May plan for and participate in field research related to community health nursing.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

075.127-030 NURSE, SUPERVISOR, EVENING-OR-NIGHT (medical ser.)

Plans, organizes, and directs activities for evening or night shift of hospital nursing department: Establishes policies and procedures for nursing department, following directions of hospital administrators. Observes techniques of and services rendered by nursing staff to ensure adherence to hospital guidelines. Demonstrates techniques for nursing students and new personnel to provide training and direction. Identifies problem areas in nursing department, such as understaffing, absenteeism, and wastefulness, and takes corrective action. Monitors use of supplies and equipment to avoid abuses and requistions supplies. Responds to various departments requesting emergency assistance and assigns staff accordingly during emergencies. Prepares work schedule and assigns duties to nursing staff in department for efficient use of personnel.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

075.127-034 NURSE, INFECTION CONTROL (medical ser.)

Directs and coordinates infection control program in hospital: Compares laboratory reports with communicable diseases list to identify conditions that require infection control procedures. Advises and consults with physicians, nurses, and hospital personnel concerning precautions to be taken to protect patients, staff, and other persons from possible contamination or infection. Investigates infection control problems and arranges for follow-up care for persons exposed to infection or disease. Instructs hospital personnel in universal and specific infection control procedures.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 90

075.137-010 NURSE, SUPERVISOR, OCCUPATIONAL HEALTH NURSING (medical ser.) alternate titles: nurse supervisor, industrial nursing

Directs employee health services of industrial organization: Interprets plant and departmental health policies and regulations to nursing staff and employees. Coordinates activities of personnel rendering assistance to physician and nursing care to employees. Trains nursing staff in techniques of industrial nursing. Participates in planning and executing health information programs designed to improve efficiency and reduce absentee and accident rates. Assists workers in securing medical or other aid. Establishes work schedules for nursing staff and requisitions supplies. May conduct classes in first aid and home nursing for employees. May recommend appointment of nursing personnel.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

075.137-014 NURSE, HEAD (medical ser.)

Supervises and coordinates nursing activities in hospital unit: Assigns duties and coordinates nursing service. Evaluates nursing activities to ensure patient care, staff relations, and efficiency of service. Observes nursing care and visits patients to ensure that nursing care is carried out as directed, and treatment administered in accordance with physician's instructions. Directs preparation and maintenance of patients' clinical records. Inspects rooms and wards for cleanliness and comfort. Accompanies physician on rounds, and keeps informed of

special orders concerning patients. Participates in orientation and training of personnel. Orders, or directs ordering of drugs, solutions, and equipment, and maintains records on narcotics. Investigates and resolves complaints, or refers unusual problems to superior.
GOE: 10.02.01 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 87

075.167-010 NURSE, SUPERVISOR (medical ser.)
Directs, through head nurses, activities of nursing staff: Plans and organizes activities in nursing services, such as obstetrics, pediatrics, or surgery, or for two or more patient-care units to ensure patient needs are met in accordance with instructions of physician and hospital administrative procedures. Coordinates activities with other patient care units. Consults with NURSE, HEAD (medical ser.) 075.137-014 on nursing problems and interpretation of hospital policies to ensure patient needs are met. Plans and organizes orientation and in-service training for unit staff members, and participates in guidance and educational programs. Assists in formulating budget. Engages in studies and investigations related to improving nursing care.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 87

075.167-014 QUALITY ASSURANCE COORDINATOR (medical ser.)
Interprets and implements quality assurance standards in hospital to ensure quality care to patients: Reviews quality assurance standards, studies existing hospital policies and procedures, and interviews hospital personnel and patients to evaluate effectiveness of quality assurance program. Writes quality assurance policies and procedures. Reviews and evaluates patients' medical records, applying quality assurance criteria. Selects specific topics for review, such as problem procedures, drugs, high volume cases, high risk cases, or other factors. Compiles statistical data and writes narrative reports summarizing quality assurance findings. May review patient records, applying utilization review criteria, to determine need for admission and continued stay in hospital. May oversee personnel engaged in quality assurance review of medical records.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 90

075.264-010 NURSE PRACTITIONER (medical ser.) alternate titles: primary care nurse practitioner
Provides general medical care and treatment to patients in medical facility, such as clinic, health center, or public health agency, under direction of physician: Performs physical examinations and preventive health measures within prescribed guidelines and instructions of physician. Orders, interprets, and evaluates diagnostic tests to identify and assess patient's clinical problems and health care needs. Records physical findings, and formulates plan and prognosis, based on patient's condition. Discusses case with physician and other health professionals to prepare comprehensive patient care plan. Submits health care plan and goals of individual patients for periodic review and evaluation by physician. Prescribes or recommends drugs or other forms of treatment such as physical therapy, inhalation therapy, or related therapeutic procedures. May refer patients to physician for consultation or to specialized health resources for treatment. May be designated according to field of specialization as Pediatric Nurse Practitioner (medical ser.). Where state law permits, may engage in independent practice.
GOE: 10.02.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

075.264-014 NURSE-MIDWIFE (medical ser.)
Provides medical care and treatment to obstetrical patients under supervision of OBSTETRICIAN (medical ser.), delivers babies, and instructs patients in prenatal and postnatal health practices: Participates in initial examination of obstetrical patient, and is assigned responsibility for care, treatment, and delivery of patient. Examines patient during pregnancy, utilizing physical findings, laboratory test results, and patient's statements to evaluate condition and ensure that patient's progress is normal. Discusses case with OBSTETRICIAN (medical ser.) to assure observation of specified practices. Instructs patient in diet and prenatal health practices. Stays with patient during labor to reassure patient and to administer medication. Delivers infant and performs postpartum examinations and treatments to ensure that patient and infant are responding normally. When deviations from standard are encountered during pregnancy or delivery, administers stipulated emergency measures, and arranges for immediate contact of OBSTETRICIAN (medical ser.). Visits patient during postpartum period in hospital and at home to instruct patient in care of self and infant and examine patient. Maintains records of cases for inclusion in establishment file. Conducts classes for groups of patients and families to provide information concerning pregnancy, childbirth, and family orientation. May direct activities of other workers. May instruct in midwifery in establishment providing such training.
GOE: 10.02.01 STRENGTH: M GED: R5 M5 L3 SVP: 7 DLU: 77

075.364-010 NURSE, GENERAL DUTY (medical ser.) alternate titles: nurse, staff
Provides general nursing care to patients in hospital, nursing home, infirmary, or similar health care facility: Administers prescribed medications and treatments in accordance with approved nursing techniques. Prepares equipment and aids physician during treatments and examinations of patients. Observes patient, records significant conditions and reactions, and notifies supervisor or physician of patient's condition and reaction to drugs, treatments, and significant incidents. Takes temperature, pulse, blood pressure, and other vital signs to detect deviations from normal and assess condition of patient. May rotate among various clinical services of institution, such as obstetrics, surgery, orthopedics, outpatient and admitting, pediatrics, and psychiatry. May prepare rooms, sterile instruments, equipment and supplies, and hand items to SURGEON (medical ser.) 070.101-094; OBSTETRICIAN (medical ser.) 070.101-054, or other medical practitioner. May make beds, bathe, and feed patients. May serve as leader for group of personnel rendering nursing care to number of patients.
GOE: 10.02.01 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 89

075.371-010 NURSE ANESTHETIST (medical ser.)
Administers local, inhalation, intravenous, and other anesthetics prescribed by ANESTHESIOLOGIST (medical ser.) 070.101-010 to induce total or partial loss of sensation or consciousness in patients during surgery, deliveries, or other medical and dental procedures: Fits mask to patient's face, turns dials and sets gauges of equipment to regulate flow of oxygen and gases to administer anesthetic by inhalation method, according to prescribed medical standards. Prepares prescribed solutions and administers local, intravenous, spinal, or other anesthetic, following specified methods and procedures. Notes patient's skin color and dilation of pupils and observes video screen and digital display of computerized equipment to monitor patient's vital signs during anesthesia. Initiates remedial measures to prevent surgical shock or other adverse conditions. Informs physician of patient's condition during anesthesia.
GOE: 10.02.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 90

075.374-014 NURSE, OFFICE (medical ser.)
Cares for and treats patients in medical office, as directed by physician: Prepares patient for and assists with examinations. Administers injections and medications, dresses wounds and incisions, interprets physician's instructions to patients, assists with emergency and minor surgery, and performs related tasks as directed. Maintains records of vital statistics and other pertinent data of patient. Cleans and sterilizes instruments and equipment, and maintains stock of supplies. May conduct specified laboratory tests. May record and develop electrocardiograms. May act as receptionist, perform secretarial duties, and prepare monthly statements.
GOE: 10.02.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 89

075.374-018 NURSE, PRIVATE DUTY (medical ser.) alternate titles: nurse, special
Contracts independently to render nursing care, usually to one patient, in hospital or private home: Administers medications, treatments, dressings, and other nursing services, according to physician's instructions and condition of patient. Observes, evaluates, and records symptoms. Applies independent emergency measures to counteract adverse developments and notifies physician of patient's condition. Directs patient in good health habits. Gives information to family in treatment of patient and maintenance of healthful environment. Maintains equipment and supplies. Cooperates with community agencies furnishing assistance to patient. May supervise diet when employed in private home. May specialize in one field of nursing, such as obstetrics, psychiatry, or tuberculosis.
GOE: 10.02.01 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 77

075.374-022 NURSE, STAFF, OCCUPATIONAL HEALTH NURSING (medical ser.) alternate titles: nurse, staff, industrial
Provides nursing service and first aid to employees or persons who become ill or injured on premises of department store, industrial plant, or other establishment: Takes patient's vital signs, treats wounds, evaluates physical condition of patient, and contacts physician and hospital to arrange for further medical treatment, when needed. Maintains record of persons treated, and prepares accident reports and insurance forms. Develops employee programs, such as health education, accident prevention, alcohol abuse counseling, curtailment of smoking, and weight control regimens. May assist physician in physical examination of new employees.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 87

076 THERAPISTS

This group includes occupations concerned with the treatment and rehabilitation of persons with physical or mental disabilities or disorders, to develop or restore functions, prevent loss of physical capacities, and maintain optimum performance. Includes occupations utilizing means, such as exercise, massage, heat, light, water, electricity, and specific therapeutic apparatus, usually as prescribed by a physician; or participation in medically oriented rehabilitative programs, including educational, occupational, and recreational activities.

076.101-010 AUDIOLOGIST (medical ser.)
Determines type and degree of hearing impairment and implements habilitation and rehabilitation services for patient: Administers and interprets variety of tests, such as air and bone conduction, and speech reception and discrimination tests, to determine type and degree of hearing impairment, site of damage, and effects on comprehension and speech. Evaluates test results in relation to behavioral, social, educational, and medical information obtained from patients, families, teachers, SPEECH PATHOLOGISTS (profess. & kin.) 076.107-010 and other professionals to determine communication problems related to hearing disability. Plans and implements prevention, habilitation, or rehabilitation services, including hearing aid selection and orientation, counseling, auditory training, lip reading, language habilitation, speech conservation, and other treatment programs developed in consultation with SPEECH PATHOLOGIST (profess. & kin.) and other professionals. May refer patient to physician or surgeon if medical treatment is determined necessary. May conduct research in physiology, pathology, biophysics, or psychophysics of auditory systems, or design and develop clinical and research procedures and apparatus. May act as consultant to educational, medical, legal, and other professional groups. May teach art and science of audiology and direct scientific projects.

GOE: 02.03.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

076.104-010 VOICE PATHOLOGIST (profess. & kin.)

Diagnoses and treats voice disorders, such as those associated with professional use of voice: Develops and implements perceptual evaluation procedures and psychophysical methods for voice assessment. Collects diagnostic data on individuals, such as output pressures, airflow, chestwall movements, and articular and laryngeal displacement, using scopes and other measuring instruments. Analyzes and interprets diagnostic data and consults with OTOLARYNGOLOGIST (medical ser.) 070.101-062 and other professionals to determine method of treatment, such as surgery, vocal modification, or voice therapy. Plans and conducts voice therapy sessions, applying auditory, visual, kinematic, and biofeedback techniques. Plans and conducts voice hygiene workshops. Calibrates equipment. May teach voice science to associates and direct research in area of voice. May establish procedures and direct operation of laboratory specializing in diagnosing and treating voice disorders and be designated Director, Bio-Communications Laboratory (medical ser.).

GOE: 02.03.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

076.107-010 SPEECH PATHOLOGIST (profess. & kin.) alternate titles: speech clinician; speech therapist

Specializes in diagnosis and treatment of speech and language problems, and engages in scientific study of human communication: Diagnoses and evaluates speech and language skills as related to educational, medical, social, and psychological factors. Plans, directs, or conducts habilitative and rehabilitative treatment programs to restore communicative efficiency of individuals with communication problems of organic and nonorganic etiology. Provides counseling and guidance and language development therapy to handicapped individuals. Reviews individual file to obtain background information prior to evaluation to determine appropriate tests and to ensure that adequate information is available. Administers, scores, and interprets specialized hearing and speech tests. Develops and implements individualized plans for assigned clients to meet individual needs, interests, and abilities. Evaluates and monitors individuals, using audio-visual equipment, such as tape recorders, overhead projectors, filmstrips, and demonstrative materials. Reviews treatment plan, and assesses individual performance to modify, change, or write new programs. Maintains records as required by law, establishment's policy, and administrative regulations. Attends meetings and conferences and participates in other activities to promote professional growth. Instructs individuals to monitor their own speech and provides ways to practice new skills. May act as consultant to educational, medical, and other professional groups. May conduct research to develop diagnostic and remedial techniques. May serve as consultant to classroom teachers to incorporate speech and language development activities into daily schedule. May teach manual sign language to student incapable of speaking. May instruct staff in use of special equipment designed to serve handicapped. See AUDIOLOGIST (medical ser.) 076.101-010 for one who specializes in diagnosis of, and provision of rehabilitative services for, auditory problems.

GOE: 02.03.04 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 89

076.117-010 COORDINATOR OF REHABILITATION SERVICES (medical ser.) alternate titles: director of rehabilitative services

Plans, administers, and directs operation of health rehabilitation programs, such as physical, occupational, recreational, and speech therapies: Consults with medical and professional staff of other departments and personnel from associated health care fields to plan and coordinate joint patient and management objectives. Conducts staff conferences and plans training programs to maintain proficiency of staff in therapy techniques and use of new methods and equipment to meet patients' needs. Allocates personnel on basis of work load, space, and equipment available. Analyzes operating costs and prepares department budget. Recommends patient fees for therapy based on use of equipment and therapy staff. May coordinate research projects to develop new approaches to rehabilitative therapy. May serve as rehabilitative therapy consultant to employers, educational institutions, and community organizations.

GOE: 11.07.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

076.121-010 OCCUPATIONAL THERAPIST (medical ser.)

Plans, organizes, and conducts occupational therapy program in hospital, institution, or community setting to facilitate development and rehabilitation of mentally, physically, or emotionally handicapped: Plans program involving activities, such as manual arts and crafts; practice in functional, prevocational, vocational, and homemaking skills, and activities of daily living; and participation in sensorimotor, educational, recreational, and social activities designed to help patients or handicapped persons develop or regain physical or mental functioning or adjust to handicaps. Consults with other members of rehabilitation team to select activity program consistent with needs and capabilities of individual and to coordinate occupational therapy with other therapeutic activities. Selects constructive activities suited to individual's physical capacity, intelligence level, and interest to upgrade individual to maximum independence, prepare individual for return to employment, assist in restoration of functions, and aid in adjustment to disability. Teaches individuals skills and techniques required for participation in activities and evaluates individual's progress. Designs and constructs special equipment for individual and suggests adaptation of individual's work-living environment. Requisitions supplies and equipment. Lays out materials for individual's use and cleans and repairs tools at end of sessions. May conduct training programs or participate in training medical and nursing students and other workers in occupational therapy techniques and objectives. May plan, direct, and coordinate occupational therapy program and be designated Director, Occupational Therapy (medical ser.).

GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 89

076.121-014 PHYSICAL THERAPIST (education; medical ser.) alternate titles: physiotherapist

Plans and administers medically prescribed physical therapy treatment for patients suffering from injuries, or muscle, nerve, joint and bone diseases, to restore function, relieve pain, and prevent disability: Reviews physician's referral (prescription) and patient's condition and medical records to determine physical therapy treatment required. Tests and measures patient's strength, motor development, sensory perception, functional capacity, and respiratory and circulatory efficiency, and records findings to develop or revise treatment programs. Plans and prepares written treatment program based on evaluation of patient data. Administers manual exercises to improve and maintain function. Instructs, motivates, and assists patient to perform various physical activities, such as nonmanual exercises, ambulatory functional activities, daily-living activities, and in use of assistant and supportive devices, such as crutches, canes, and prostheses. Administers treatments involving application of physical agents, using equipment, such as hydrotherapy tanks and whirlpool baths, moist packs, ultraviolet and infrared lamps, and ultrasound machines. Evaluates effects of treatment at various stages and adjusts treatments to achieve maximum benefit. Administers massage, applying knowledge of massage techniques and body physiology. Administers traction to relieve pain, using traction equipment. Records treatment, response, and progress in patient's chart or enters information into computer. Instructs patient and family in treatment procedures to be continued at home. Evaluates, fits, and adjusts prosthetic and orthotic devices and recommends modification to ORTHOTIST (medical ser.) 078.261-018. Confers with physician and other practitioners to obtain additional patient information, suggest revisions in treatment program, and integrate physical therapy treatment with other aspects of patient's health care. Orients, instructs, and directs work activities of assistants, aides, and students. May plan and conduct lectures and training programs on physical therapy and related topics for medical staff, students, and community groups. May plan and develop physical therapy research programs and participate in conducting research. May write technical articles and reports for publications. May teach physical therapy techniques and procedures in educational institutions. May limit treatment to specific patient group or disability or specialize in conducting physical therapy research. In facilities where assistants are also employed, may primarily administer complex treatment, such as certain types of manual exercises and functional training, and monitor administration of other treatments. May plan, direct, and coordinate physical therapy program and be designated Director, Physical Therapy (medical ser.). Must comply with state requirement for licensure.

GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 89

076.121-018 EXERCISE PHYSIOLOGIST (medical ser.)

Develops, implements, and coordinates exercise programs and administers medical tests, under physician's supervision, to program participants to promote physical fitness: Explains program and test procedures to participant. Interviews participant to obtain vital statistics and medical history and records information. Records heart activity, using electrocardiograph (EKG) machine, while participant undergoes stress test on treadmill, under physician's supervision. Measures oxygen consumption and lung functioning, using spirometer. Measures amount of fat in body, using such equipment as hydrostatic scale, skinfold calipers, and tape measure, to assess body composition. Performs routine laboratory test of blood samples for cholesterol level and glucose tolerance, or interprets test results. Schedules other examinations and tests, such as physical examination, chest x ray, and urinalysis. Records test data in patient's chart or enters data into computer. Writes initial and follow-up exercise prescriptions for participants, following physician's recommendation, specifying equipment, such as treadmill, track, or bike. Demonstrates correct use of exercise equipment and exercise routines. Conducts individual and group aerobic, strength, and flexibility exercises. Observes participants during exercise for signs of stress. Teaches behavior modification classes, such as stress management, weight control, and related subjects. Orders material and supplies and calibrates equipment. May supervise work activities of other staff members.

GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 90

076.124-010 MANUAL-ARTS THERAPIST (medical ser.)

Instructs patients in prescribed manual arts activities to prevent anatomical and physiological deconditioning, and to assist in maintaining, improving, or developing work skills: Collaborates with other members of rehabilitation team in planning and organizing work activities consonant with patients' capabilities and disabilities. Teaches, by means of actual or simulated work situations, activities, such as woodworking, photography, metalworking, agriculture, electricity, and graphic arts. Prepares reports showing development of patient's work tolerance, and emotional and social adjustment to aid medical personnel in evaluating patient's progress and ability to meet physical and mental demands of employment.

GOE: 10.02.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

076.124-014 RECREATIONAL THERAPIST (medical ser.) alternate titles: therapeutic recreation worker

Plans, organizes, and directs medically approved recreation program for patients in hospitals and other institutions: Directs and organizes such activities as sports, dramatics, games, and arts and crafts to assist patients to develop interpersonal relationships, to socialize effectively, and to develop confidence needed to participate in group activities. Regulates content of program in accordance with patients' capabilities, needs and interests. Instructs patients in re-

laxation techniques, such as deep breathing, concentration, and other activities, to reduce stress and tension. Instructs patients in calisthenics, stretching and limbering exercises, and individual and group sports. Counsels and encourages patients to develop leisure activities. Organizes and coordinates special outings and accompanies patients on outings, such as ball games, sightseeing, or picnics to make patients aware of available recreational resources. Prepares progress charts and periodic reports for medical staff and other members of treatment team, reflecting patients' reactions and evidence of progress or regression. May supervise and conduct in-service training of other staff members, review their assessments and program goals, and consult with them on selected cases. May train groups of volunteers and students in techniques of recreation therapy. May serve as consultant to employers, educational institutions, and community health programs. May prepare and submit requisition for needed supplies.
GOE: 10.02.02 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 89

076.124-018 HORTICULTURAL THERAPIST (medical ser.)
Plans, coordinates, and conducts therapeutic gardening program to facilitate rehabilitation of physically and mentally handicapped patients: Confers with medical staff and patients to determine patients' needs. Evaluates patients' disabilities to determine gardening programs. Conducts gardening sessions to rehabilitate, train, and provide recreation for patients. Revises gardening program, based on observations and evaluation of patients' progress.
GOE: 10.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

076.127-010 ART THERAPIST (medical ser.)
Plans and conducts art therapy programs in public and private institutions to rehabilitate mentally and physically disabled clients: Confers with members of medically oriented team to determine physical and psychological needs of client. Devises art therapy program to fulfill physical and psychological needs. Instructs individuals and groups in use of various art materials, such as paint, clay, and yarn. Appraises client's art projections and recovery progress. Reports findings to other members of treatment team and counsels on client's response until art therapy is discontinued. Maintains and repairs art materials and equipment.
GOE: 10.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

076.127-014 MUSIC THERAPIST (medical ser.)
Plans, organizes, and directs medically prescribed music therapy activities as part of mental and physical health care and treatment of patients to influence behavorial and psychological changes leading to restoration, maintenance, and improvement of health and increased comprehension of self, environment, and physical ability: Collaborates with other members of rehabilitation team in planning music activities in accordance with patients' physical or psychological needs, capabilities, and interests. Develops treatment plan, using individualized needs assessment, depending on focus of therapy, such as hospice, psychiatric, or obstetrics. Directs and participates in instrumental and vocal music activities designed to meet patients' physical or psychological needs, such as solo or group singing, rhythmic and other creative music activities, music listening, or attending concerts. Instructs patients individually or in groups in prescribed instrumental or vocal music and music projective techniques, such as guided imagery, progressive relaxation, awareness of conscious feelings, or musically intergraded Lamaze Method. Studies and analyzes patients' reactions to various experiences and prepares reports describing symptoms indicative of progress or regression. Submits periodic reports to treatment team or physician to provide clinical data for evaluation. May oversee practicum and approved internships.
GOE: 10.02.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 89

076.127-018 DANCE THERAPIST (medical ser.)
Plans, organizes, and leads dance and body movement activities to improve patients' mental outlooks and physical well-beings: Observes and evaluates patient's mental and physical disabilities to determine dance and body movement treatment. Confers with patient and medical personnel to develop dance therapy program. Conducts individual and group dance sessions to improve patient's mental and physical well-being. Makes changes in patient's program based on observation and evaluation of progress. Attends and participates in professional conferences and workshops to enhance efficiency and knowledge.
GOE: 10.02.02 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 86

076.167-010 INDUSTRIAL THERAPIST (medical ser.)
Arranges salaried, productive employment in actual work environment for mentally ill patients, to enable patients to perform medically prescribed work activities, and to motivate and prepare patients to resume employment outside hospital environment: Determines work activities for greatest therapeutic value for particular patient within limits of patient's disability. Plans work activities in coordination with other members of rehabilitation team. Assigns patient to work activity and evaluates patient's progress. Processes payroll records and salary distribution.
GOE: 10.02.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

076.224-010 PHYSICAL THERAPIST ASSISTANT (medical ser.) alternate titles: physical therapy assistant; physical therapy technician
Administers physical therapy treatments to patients, working under direction of and as assistant to PHYSICAL THERAPIST (medical ser.) 076.121-014: Administers active and passive manual therapeutic exercises, therapeutic massage, and heat, light, sound, water, and electrical modality treatments, such as ultrasound, electrical stimulation, ultraviolet, infrared, and hot and cold packs. Administers traction to relieve neck and back pain, using intermittent and static traction equipment. Instructs, motivates, and assists patients to learn and improve functional activities, such as preambulation, transfer, ambulation, and daily-living activities. Observes patients during treatments and compiles and evaluates data on patients' responses to treatments and progress and reports orally or in writing to PHYSICAL THERAPIST (medical ser.). Fits patients for, adjusts, and trains patients in use and care of orthopedic braces, prostheses, and supportive devices, such as crutches, canes, walkers, and wheelchairs. Confers with members of physical therapy staff and other health team members, individually and in conference, to exchange, discuss, and evaluate patient information for planning, modifying, and coordinating treatment programs. Gives orientation to new PHYSICAL THERAPIST ASSISTANTS (medical ser.) and directs and gives instructions to PHYSICAL THERAPY AIDES (medical ser.) 355.354-010. Performs clerical duties, such as taking inventory, ordering supplies, answering telephone, taking messages, and filling out forms. May measure patient's range-of-joint motion, length and girth of body parts, and vital signs to determine effects of specific treatments or to assist PHYSICAL THERAPIST (medical ser.) to compile data for patient evaluations. May monitor treatments administered by PHYSICAL THERAPY AIDES (medical ser.).
GOE: 10.02.02 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 87

076.224-014 ORIENTATION AND MOBILITY THERAPIST FOR THE BLIND (education; medical ser.; nonprofit org.) alternate titles: counselor, orientation and mobility; instructor of blind; orientor; orientation therapist for blind; therapist for blind
Assists blind and visually impaired clients to achieve personal adjustment and maximum independence through training in techniques of daily living: Interviews clients, analyzes client's lifestyle, and administers assessment tests to determine present and required or desired orientation and mobility skills. Trains clients in awareness of physical environment through sense of smell, hearing, and touch, and to travel alone, with or without cane, through use of variety of actual or simulated travel situations and exercises. Teaches clients personal and home management skills, and communication skills, such as eating, grooming, dressing, coin and money identification, cooking, and use of telephone and bathroom facilities. Teaches clients to protect body, using hands and arms to detect obstacles. Instructs clients in arts, crafts, and recreational skills, such as macrame, leatherworking, sewing, ceramics, and playing piano to improve sense of touch, coordination, and motor skills. Teaches clients to read and write Braille. Instructs client in use of reading machines and common electrical devices, and in development of effective listening techniques. Instructs clients in group activities, such as swimming, dancing, or playing modified sports activities to encourage and increase capacity for social participation and improve general health. Prepares progress report to allow members of rehabilitation team to evaluate clients' ability to perform varied activities essential to daily living. May develop and implement individualized orientation and mobility instructional program for blind and visually impaired and be designated Orientation And Mobility Instructor (education).
GOE: 10.02.02 STRENGTH: L GED: R5 M2 L5 SVP: 6 DLU: 80

076.264-010 PHYSICAL-INTEGRATION PRACTITIONER (medical ser.)
Conducts physical integration program to improve client's muscular function and flexibility: Determines client's medical history regarding accidents, operations, or chronic health complaints to plan objectives of program, using questionnaire. Photographs client to obtain different views of client's posture to facilitate treatment, using camera. Instructs client to demonstrate arm and leg movement and flexion of spine to evaluate client against established program norms. Determines program treatment procedures and discusses goals of program with client. Applies skin lubricant to section of body specified for treatment and massages muscles to release subclinical adhesions either manually or using hand held tool, utilizing knowledge of anatomy. Demonstrates and directs client's participation in specific exercises designed to fatigue desired muscle groups and release tension. Observes client's progress during program through such factors as increased joint movement, improved posture, or coordination. Records client's treatment, response, and progress.
GOE: 10.02.02 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 86

076.361-010 CORRECTIVE THERAPIST (medical ser.)
Provides medically prescribed program of physical exercises and activities designed to prevent muscular deterioration resulting from long convalescence or inactivity due to chronic illness. Collaborates with other members of rehabilitation team in organizing patients' course of treatment. Establishes rapport with patients to motivate them, choosing exercises and activities in accordance with prescription. Utilizes any or combination of resistive, assistive, or free movement exercises, utilizing bars, or hydrogymnastics. Instructs patients in use, function, and care of prostheses and devices, such as braces, crutches, or canes and in use of manually controlled vehicles. Directs blind persons in foot travel. Prepares progress reports of patient's emotional reactions to and progress in training by observing patient during exercises to provide clinical data for diagnosis and prognosis by rehabilitation team. Directs patients in techniques of personal hygiene to compensate for permanent disabilities.
GOE: 10.02.02 STRENGTH: M GED: R4 M2 L4 SVP: 7 DLU: 77

076.361-014 RESPIRATORY THERAPIST (medical ser.)
Administers respiratory therapy care and life support to patients with deficiencies and abnormalities of cardiopulmonary system, under supervision of physician and by prescription: Reads prescription, measures arterial blood gases, and reviews patient information to assess patient condition and determine

requirements for treatment, such as type and duration of therapy, and medication and dosages. Determines most suitable method of administering inhalants, precautions to be observed, and modifications which may be needed that will be compatible with physician's orders. Sets up and operates devices, such as mechanical ventilators, therapeutic gas administration apparatus, environmental control systems, and aerosol generators. Operates equipment to ensure specified parameters of treatment, such as volume, gas concentration, humidity, and temperature, and to administer medicinal gases and aerosol drugs to patients. Monitors patient's physiological responses to therapy, such as vital signs, arterial blood gases, and blood chemistry changes. Performs bronchopulmonary drainage and assists patient in performing breathing exercises. Performs pulmonary function tests to be used by physician in diagnosis of case. Observes equipment function and adjusts equipment to obtain optimum results to therapy. Consults with physician in event of adverse reactions. Maintains patient's chart that contains pertinent identification and therapy information. Inspects and tests respiratory therapy equipment to ensure equipment is functioning safely and efficiently. Orders repairs when needed. Demonstrates respiratory care procedures to trainees and other health care personnel.
GOE: 10.02.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 88

076.364-010 OCCUPATIONAL THERAPY ASSISTANT (medical ser.) alternate titles: educational/development assistant

Assists OCCUPATIONAL THERAPIST (medical ser.) 076.121-010 in administering occupational therapy program in hospital, related facility, or community setting for physically, developmentally, mentally retarded, or emotionally handicapped clients: Assists in evaluation of clients daily living skills and capacities to determine extent of abilities amd limitations. Assists in planning and implementing educational, vocational, and recreational programs and activities established by registered OCCUPATIONAL THERAPIST (medical ser.), designed to restore, reinforce, and enhance task performances, diminish or correct pathology, and to promote and maintain health and self-sufficiency. Designs and adapts equipment and working-living environment. Fabricates splints and other assistant devices. Reports information and observations to supervisor. Carries out general activity program for individuals or groups. Assists in instructing patient and family in home programs as well as care and use of adaptive equipment. Prepares work materials, assists in maintenance of equipment, and orders supplies. May be responsible for maintaining observed information in client records and preparing reports. May teach basic living skills to institutionalized, mentally retarded adults. May assist EDUCATIONAL SPECIALIST (education) 099.167-022 or CLINICAL PSYCHOLOGIST (profess. & kin.) 045.107-022 in administering situational or diagnostic tests to measure client's abilities or progress.
GOE: 10.02.02 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 86

077 DIETITIANS

This group includes occupations concerned with the application of the principles of nutrition to plan and supervise the preparation and serving of meals. Includes planning menus and diets for special nutritional requirements; participating in research; or instructing in the field of nutrition.

077.061-010 DIETITIAN, RESEARCH (profess. & kin.) alternate titles: research nutritionist

Conducts nutritional research to expand knowledge in one or more phases of dietetics: Plans, organizes, and conducts programs in nutrition, foods, and food service systems, evaluating and utilizing appropriate methodology and tools to carry out program. Studies and analyzes recent scientific discoveries in nutrition for application in current research, for development of tools for future research, and for interpretation to public. Communicates findings through reports and publications.
GOE: 02.02.04 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 77

077.117-010 DIETITIAN, CHIEF (profess. & kin.) alternate titles: dietitian, administrative; director, dietetics department

Directs activities of institution department providing quantity food service and nutritional care: Administers, plans, and directs activities of department providing quantity food service. Establishes policies and procedures, and provides administrative direction for menu formulation, food preparation and service, purchasing, sanitation standards, safety practices, and personnel utilization. Selects professional dietetic staff, and directs departmental educational programs. Coordinates interdepartmental professional activities, and serves as consultant to management on matters pertaining to dietetics.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

077.124-010 DIETETIC TECHNICIAN (profess. & kin.)

Provides services in assigned areas of food service management, teaches principles of food and nutrition, and provides dietary consultation, under direction of DIETITIAN, CLINICAL (profess. & kin.) 077.127-014: Plans menus based on established guidelines. Standardizes recipes and tests new products for use in facility. Supervises food production and service. Obtains and evaluates dietary histories of individuals to plan nutritional programs. Guides individuals and families in food selection, preparation, and menu planning, based upon nutritional needs. Assists in referrals for continuity of patient care. May select, schedule, and conduct orientation and in-service education programs. May develop job specifications, job descriptions, and work schedules. May assist in implementing established cost control procedures.
GOE: 05.05.17 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

077.127-010 COMMUNITY DIETITIAN (profess. & kin.)

Plans, organizes, coordinates, and evaluates nutritional component of health care services for organization: Develops and implements plan of care based on assessment of nutritional needs and available sources and correlates plan with other health care. Evaluates nutritional care and provides followup continuity of care. Instructs individuals and families in nutritional principles, diet, food selection, and economics and adapts teaching plans to individual life style. Provides consultation to and works with community groups. Conducts or participates in in-service education and consultation with professional staff and supporting personnel of own and related organizations. Plans or participates in development of program proposals for funding. Plans, conducts, and evaluates dietary studies and participates in nutritional and epidemiologic studies with nutritional component. Evaluates food service systems and makes recommendation for conformance level that will provide optional nutrition and quality food if associated with group care institutions. May be employed by public health agency and be designated Nutritionist, Public Health (government ser.).
GOE: 11.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

077.127-014 DIETITIAN, CLINICAL (profess. & kin.) alternate titles: dietitian, therapeutic

Plans therapeutic diets and implements preparation and service of meals for patients in hospital, clinic, or other health care facility: Consults with physician and other health care personnel to determine nutritional needs and diet restrictions, such as low fat or salt free, of patients. Formulates menus for therapeutic diets based on medical and physical condition of patients and integrates patient's menus with basic institutional menus. Inspects meals served for conformance to prescribed diets and for standards of palatability and appearance. Instructs patients and their families in nutritional principles, dietary plans, food selection, and preparation. May supervise activities of workers engaged in food preparation and service. May engage in research [DIETITIAN, RESEARCH (profess. & kin.) 077.061-010]. May teach nutrition and diet therapy to medical students and hospital personnel [DIETITIAN, TEACHING (profess. & kin.) 077.127-022].
GOE: 05.05.17 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

077.127-018 DIETITIAN, CONSULTANT (profess. & kin.) alternate titles: institutional-nutrition consultant

Advises and assists personnel in public and private establishments, such as hospitals, health-related facilities, child-care centers, and schools, in food service systems and nutritional care of clients: Evaluates and monitors all aspects of food service operation, making recommendations for conformance level that will provide nutritionally adequate, quality food. Plans, organizes, and conducts orientation and in-service educational programs for food service personnel. Develops menu patterns. Assesses, develops, implements, and evaluates nutritional-care plans and provides for followup, including written reports. Consults with health care team concerning nutritional care of client. Confers with designers, builders, and equipment personnel in planning for building or remodeling food service units.
GOE: 05.05.17 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

077.127-022 DIETITIAN, TEACHING (profess. & kin.)

Plans, organizes, and conducts educational programs in dietetics, nutrition and institution management for DIETETIC INTERNS (profess. & kin.), nursing students, and other medical personnel: Develops curriculum and prepares manuals, visual aids, course outlines, and other material used in teaching. Lectures students on composition and values of foods, principles of nutrition, menu planning, diet therapy, food cost control, marketing, and administration of dietary department. May engage in research.
GOE: 11.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

078 OCCUPATIONS IN MEDICAL AND DENTAL TECHNOLOGY

This group includes occupations concerned with the application of technical knowledge in fields of medicine or dentistry for examination and treatment of patients or for research. Occupations occur in a doctor's or dentist's office, hospital, or laboratory.

078.121-010 MEDICAL TECHNOLOGIST, TEACHING SUPERVISOR (medical ser.)

Teaches one or more phases of medical technology to students of medicine, medical technology, or nursing arts, or to INTERNS (medical ser.): Organizes and directs medical technology training program. Formulates curriculums, outlines course materials, and establishes criteria in other matters affecting education and welfare of students. Develops educational policies concerning teaching methods. Supervises other instructors. May act as liaison officer between college or university and laboratory or hospital to coordinate academic and clinical training. May specialize in teaching one phase of medical technology.
GOE: 02.04.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

078.131-010 CHIEF TECHNOLOGIST, NUCLEAR MEDICINE (medical ser.) alternate titles: chief, nuclear medicine technologist

Supervises and coordinates activities of NUCLEAR MEDICINE TECHNOLOGISTS (medical ser.) 078.361-018 engaged in preparing, administering, and measuring radioactive isotopes in therapeutic, diagnostic, and tracer studies

Assigns workers to prepare radiopharmaceuticals, perform nuclear medicine studies, and conduct laboratory tests, and monitors activities to ensure efficiency and accuracy of procedures. Writes computer protocols for diagnostic studies. Develops protocols for new and revised procedures and trains department workers in overall operation of department and use of equipment. Administers radiopharmaceuticals under direction of physician or other qualified medical personnel. Implements and supervises radiation safety policies and procedures to ensure safety of personnel and legal requirements are met for handling and disposing of radioactive materials. Assists in coordinating activities with other departments and in resolving operating problems. Performs duties of NUCLEAR MEDICINE TECHNOLOGIST (medical ser.) as needed.
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 89

078.161-010 MEDICAL TECHNOLOGIST, CHIEF (medical ser.) alternate titles: medical laboratory manager

Directs and coordinates activities of workers engaged in performing chemical, microscopic, and bacteriologic tests to obtain data for use in diagnosis and treatment of diseases: Assigns workers to duties and oversees performance of tests in fields of microbiology, chemistry, histology, hematology, immunohematology, and serology. Purchases or directs purchase of laboratory equipment and supplies. Reviews test results to ensure quality control. Coordinates and conducts education and training programs for medical technology students and personnel.
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 89

078.161-014 CARDIOPULMONARY TECHNOLOGIST, CHIEF (medical ser.)

Coordinates activities of CARDIOPULMONARY TECHNOLOGISTS (medical ser.) 078.362-030 engaged in performing diagnostic testing and treatment of patients with heart, lung, and blood vessel disorders: Establishes methods for conducting tests and treatments, applying knowledge of medical requirements and laboratory procedures. Schedules patients for tests and treatment by staff members. Reviews reports to ensure compliance with test and treatment procedures. Develops and modifies training program for assigned personnel. Evaluates worker performances and recommends promotions, transfers, and dismissals.
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

078.162-010 RADIOLOGIC TECHNOLOGIST, CHIEF (medical ser.) alternate titles: chief, radiology

Directs and coordinates activities of radiology or diagnostic imaging department in hospital or other medical facility: Reviews work schedules and assigns duties to workers to maintain patient flow and achieve production goals. Oversees staff in operation of imaging equipment, such as x-ray machine, fluoroscope, CT (computerized tomography) scanner, or MRI (magnetic resonance imaging) equipment, evaluates accuracy and quality of images, and provides technical assistance. Demonstrates new techniques, equipment, and procedures to staff. Implements and monitors radiation safety measures to ensure safety of patients and staff and compliance with government regulatory requirements. Recommends personnel actions, such as performance evaluations, promotions, and disciplinary measures. Coordinates purchase of supplies and equipment and makes recommendations concerning department operating budget.
GOE: 10.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 89

078.221-010 IMMUNOHEMATOLOGIST (medical ser.)

Performs immunohematology tests, recommends blood problem solutions to doctors, and serves as consultant to blood bank and community: Visually inspects blood in specimen tubes for hemolysis. Centrifuges blood specimen to separate red cells from serum and tests separated serum to detect presence of antibodies. Interprets reactions observed to devise experiments and suggest techniques that will resolve patient's blood problems. Combines known and unknown cells with serum in test tubes and selects reagents, such as albumin, protolytic enzymes, and anti-human globulin, for individual tests to enhance and make visible reactions of agglutination and hemolysis. Processes various combinations in centrifuge and examines resulting samples under microscope to identify evidence of agglutination or hemolysis. Repeats and varies tests until normal suspension of reagents, serum, and red cells is attained. Interprets results obtained and identifies specific antibodies. Writes blood specifications to meet patient's need, on basis of test results, and applies knowledge of blood classification system to locate donor's blood. Performs immunohematology tests on donor's blood to confirm matching blood types. Requisitions and sends blood to supply patient's need, and prepares written report to inform physician of test results and of required volume of blood to administer. Evaluates completeness of immunohematology tests. May advise MEDICAL TECHNOLOGISTS (medical ser.) 078.261-038 in techniques of microscopic identification of precipitation, agglutination, or hemolysis in blood that leads to resolution of problems.
GOE: 02.04.02 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 89

078.261-010 BIOCHEMISTRY TECHNOLOGIST (medical ser.) alternate titles: medical technologist, chemistry; technologist, biochemistry

Performs qualitative and quantitative chemical analyses of body fluids and exudates, following instructions, to provide information used in diagnosis and treatment of diseases: Tests specimens, such as urine, blood, spinal fluid, and gastric juices, for presence and quantity of sugar, albumin, drugs, toxins, and blood gases such as oxygen. Prepares solutions used in chemical analysis. Calibrates and maintains manual and computer-controlled analyzers, spectrophotometers, colorimeters, flame photometers, and other equipment used in quantitative and qualitative analysis. May take blood samples.
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

078.261-014 MICROBIOLOGY TECHNOLOGIST (medical ser.) alternate titles: medical technologist, microbiology

Cultivates, isolates, and assists in identifying bacteria and other microbial organisms, and performs various bacteriological, mycological, virological, mycobacteriological, and parasitological tests: Receives human or animal body materials from autopsy or diagnostic cases, or collects specimens directly from patients, under supervision of laboratory director. Examines materials for evidence of microbial organisms. Makes parasitological tests of specimens. May instruct medical laboratory students and other medical personnel in laboratory procedures. May supervise other technologists and be known as Supervisor, Microbiology Technologists (medical ser.).
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 87

078.261-018 ORTHOTIST (medical ser.)

Provides care to patients with disabling conditions of limbs and spine by fitting and preparing orthopedic braces, under direction of and in consultation with physician: Assists in formulation of specifications for braces. Examines and evaluates patient's needs in relation to disease and functional loss. Formulates design of orthopedic brace. Selects materials, making cast measurements, model modifications, and layouts. Performs fitting, including static and dynamic alignments. Evaluates brace on patient and makes adjustments to assure fit, function, and quality of work. Instructs patient in use of orthopedic brace. Maintains patient records. May supervise ORTHOTICS ASSISTANTS (medical ser.) 078.361-022 and other support personnel. May supervise laboratory activities relating to development of orthopedic braces. May lecture and demonstrate to colleagues and other professionals concerned with orthotics. May participate in research. May perform functions of PROSTHETIST (medical ser.) 078.261-022 and be designated Orthotist-Prosthetist (medical ser.).
GOE: 05.05.11 STRENGTH: M GED: R5 M4 L4 SVP: 8 DLU: 77

078.261-022 PROSTHETIST (medical ser.)

Provides care to patients with partial or total absence of limb by planning fabrication of, writing specifications for, and fitting prothesis under guidance of and in consultation with physician: Assists physician in formulation of prescription. Examines and evaluates patient's prosthetic needs in relation to disease entity and functional loss. Formulates design of prosthesis and selects materials and components. Makes casts, measurements, and model modifications. Performs fitting, including static and dynamic alignments. Evaluates prosthesis on patient and makes adjustments to assure fit, function, comfort, and workmanship. Instructs patient in prosthesis use. Maintains patient records. May supervise PROSTHETICS ASSISTANTS (medical ser.) 078.361-026 and other personnel. May supervise laboratory activities relating to development of prosthesis. May lecture and demonstrate to colleagues and other professionals concerned with practice of prosthetics. May participate in research. May also perform functions of ORTHOTIST (medical ser.) 078.261-018.
GOE: 05.05.11 STRENGTH: M GED: R5 M4 L4 SVP: 8 DLU: 77

078.261-026 CYTOGENETIC TECHNOLOGIST (medical ser.)

Prepares, examines, and analyzes chromosomes found in biological specimens, such as amniotic fluids, bone marrow, and blood, to aid in diagnosis and treatment of genetic diseases: Selects and prepares specimen and media for cell culture, using aseptic technique, knowledge of medium components, and cell nutritional requirements. Harvests cell culture at optimum time sequence based on knowledge of cell cycle differences and culture conditions. Prepares slide of cell culture, selects banding technique, and stains slide to make chromosomes visible under microscope, following standard laboratory procedures. Views slide through photomicroscope to count and identify chromosome number and presence of structural abnormality. Photographs slide and prints picture. Cuts images of chromosomes from photograph, identifies number and types of chromosomes, and arranges and attaches chromosomes in numbered pairs on karyotype chart, using standard genetics laboratory practices and nomenclature to identify normal or abnormal chromosomes. Communicates with physicians, family members, and researchers requesting technical information or test results. May supervise subordinate laboratory personnel and be known as Supervisor, Cytogenetic Laboratory (medical ser.).
GOE: 02.04.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 90

078.261-030 HISTOTECHNOLOGIST (medical ser.) alternate titles: histologic technologist; tissue technologist

Prepares histologic slides from tissue sections for microscopic examination and diagnosis by PATHOLOGIST (medical ser.) 070.061-010: Prepares sections of human or animal tissue for immediate examination, using rapid tissue processing and frozen section technique to freeze, cut, mount and stain tissue specimen received from surgery. Operates computerized laboratory equipment to fix, dehydrate, and infiltrate with wax, tissue specimens to be preserved for study by PATHOLOGIST (medical ser.). Prepares slides of specimens, using specified stain, to enhance visibility under microscope. Examines slides under microscope to ensure tissue preparation meets laboratory requirements. May study slides under microscope to detect deviations from norm and report abnormalities for further study. May supervise activities of laboratory personnel and be known as Supervisor, Histology (medical ser.).
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 6 DLU: 87

078.261-034 MEDICAL RADIATION DOSIMETRIST (medical ser.) alternate titles: dosimetrist

Measures and calculates radiation dose and develops optimum arrangement of radiation fields and exposures to treat patient: Studies prescription, x rays showing area to be treated, and requirements for dose calculation. Selects beam energy, optimum multiple beam arrangement, beam modifying devices, and other factors, using computer, manuals, and guides. Develops several possible treatment arrangements that meet physician's criteria and submits arrangements for selection by physician. Measures and calculates prescribed radiation dose based upon field sizes, depth of tumor, treatment unit, beam modifying devices, and other information, using manuals, guides, and computer. Calculates and records daily prescribed radiation dose. Explains treatment plan to RADIATION-THERAPY TECHNOLOGISTS (medical ser.) 078.361-034. May operate x-ray equipment to obtain diagnostic x ray of patient in treatment position. May simulate treatment procedure to assist in planning treatment.
GOE: 10.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 90

078.261-038 MEDICAL TECHNOLOGIST (medical ser.)

Performs medical laboratory tests, procedures, experiments, and analyses to provide data for diagnosis, treatment, and prevention of disease: Conducts chemical analyses of body fluids, such as blood, urine, and spinal fluid, to determine presence of normal and abnormal components. Studies blood cells, their numbers, and morphology, using microscopic technique. Performs blood group, type, and compatibility tests for transfusion purposes. Analyzes test results and enters findings in computer. Engages in medical research under direction of MEDICAL TECHNOLOGIST, CHIEF (medical ser.) 078.161-010. May train and supervise students. May specialize in area such as hematology, blood-bank, serology, immunohematology, bacteriology, histology, or chemistry.
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 88

078.261-042 PHERESIS SPECIALIST (medical ser.) alternate titles: hemotherapist

Collects blood components and provides therapeutic treatments, such as replacement of plasma, or removal of white blood cells or platelets, to patients, using blood cell separator equipment: Compiles and evaluates donor information to ensure that donor meets screening criteria. Connects and installs tubing, transfer pack units, saline solution unit, other solution packs, and collection and separation containers to set up blood cell separator equipment. Explains procedures to donor or patient to reduce anxieties and obtain cooperation of donor or patient. Performs venipuncture on donor or patient to connect donor or patient to tubing of equipment to prepare for procedure. Sets controls and starts equipment that collects specific blood component or adds, reduces, or replaces blood component, and replaces remaining blood in vein of patient or donor. Monitors operation of equipment and observes trouble lights indicating equipment problems. Talks to and observes donor or patient for signs of distress or side effects such as pallor, nausea, fainting, or other problems during procedure. Forwards collection bag to laboratory for testing or further processing. Records information following collection or treatment procedures, such as flow rate, body site at which needle was inserted, anticoagulant rate, amount of fluids used, volume processed, red cells lost, and other information.
GOE: 10.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

078.262-010 PULMONARY-FUNCTION TECHNICIAN (medical ser.) alternate titles: pulmonary-function technologist

Performs pulmonary-function, lung-capacity, diffusion capacity, and blood-and-oxygen tests to gather data for use by physician in diagnosis and treatment of pulmonary disorders: Confers with patient in treatment room to explain test procedures. Explains specified methods of breathing to patient and conducts pulmonary-function tests, such as helium dilution and pulmonary mechanics (flow of air rate in lungs), arterial blood gas analyses, and lung-capacity tests, such as vital capacity and maximum breathing capacity tests, using spirometer or other equipment. Measures expired air, using various analyzers. Observes and records readings on metering devices of analysis equipment, and conveys findings of tests and analyses to physician for interpretation. May perform blood analysis tests to measure such factors as oxygen and carbon dioxide tensions, hemoglobin saturation and levels, and pH of blood, using blood gas analyzer. May measure sweat chloride to test for cystic fibrosis, using computerized analyzer. May assist physician in special procedures such as bronchoscopy.
GOE: 10.03.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 89

078.264-010 HOLTER SCANNING TECHNICIAN (medical ser.) alternate titles: holter technician

Analyzes data from cardiac-function monitoring device (Holter monitor) worn by patient for use in diagnosis of cardiovascular disorders: Places magnetic tape or cassette from Holter monitor worn by patient in scanner and starts scanner that produces audio and visual representation of heart activity. Adjusts scanner controls that regulate taped sounds associated with heart activity and focus video representation of sounds on scanner screen. Observes scanner screen to identify irregularities in patient cardiac patterns, utilizing knowledge of regular and irregular cardiac-function patterns, or verifies data provided by computer program that automatically scans, analyzes, identifies, and prints irregular heart patterns. Prints sections of abnormal heart patterns or full disclosure tape for physician. Analyzes information in patient diary to identify incidents that correspond to heart pattern irregularities detected on heart monitor. Records findings on report form and forwards tapes, form, patient diary, and printouts of heart patterns to interpreting physician. May attach electrodes to patient's chest and connect electrodes to heart monitor, following standard procedure. May measure distances between peaks and valleys of heart activity patterns, using calipers, to obtain data for further analysis. May perform other diagnostic procedures, such as electrocardiography and stress testing, to aid in medical evaluation of patient.
GOE: 10.03.01 STRENGTH: S GED: R3 M3 L3 SVP: 6 DLU: 88

078.281-010 CYTOTECHNOLOGIST (medical ser.)

Stains, mounts, and studies cells of human body to detect evidence of cancer, hormonal abnormalities, and other pathological conditions, following established standards and practices: Prepares microscopic slides from specimens of blood, scrappings, or other bodily exudates, and fixes and stains slide to preserve specimen and enhance visibility of cells under microscope. Examines slide under microscope to identify abnormalities in cell structure. Reports abnormalities to PATHOLOGIST (medical ser.) 070.061-010. May supervise and coordinate activities of staff of cytology laboratory and be known as Supervisor, Cytology (medical ser.).
GOE: 02.04.02 STRENGTH: S GED: R5 M4 L5 SVP: 6 DLU: 88

078.361-010 DENTAL HYGIENIST (medical ser.)

Performs dental prophylaxis: Cleans calcareous deposits, accretions, and stains from teeth and beneath margins of gums, using dental instruments. Feels lymph nodes under patient's chin to detect swelling or tenderness that could indicate presence of oral cancer. Feels and visually examines gums for sores and signs of disease. Examines gums, using probes, to locate periodontal recessed gums and signs of gum disease. Applies fluorides and other cavity preventing agents to arrest dental decay. Charts conditions of decay and disease for diagnosis and treatment by dentist. Exposes and develops x-ray film. Makes impressions for study casts. May remove sutures and dressings. May administer local anesthetic agents. May place and remove rubber dams, matrices, and temporary restorations. May place, carve, and finish amalgam restorations. May remove excess cement from coronal surfaces of teeth. May provide clinical services and health education to improve and maintain oral health of school children. May conduct dental health clinics for community groups to augment services of dentist.
GOE: 10.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 89

078.361-018 NUCLEAR MEDICINE TECHNOLOGIST (medical ser.)

Prepares, measures, and administers radiopharmaceuticals in diagnostic and therapeutic studies, utilizing variety of equipment and following prescribed procedures: Prepares stock solutions of radiopharmaceutical materials, calculates doses, and administers doses, under direction of physician. Calibrates equipment. Performs diagnostic studies on patients as prescribed by physician, using scanners or scintillation cameras to detect radiation emitted and to produce image of organ on photographic film. Measures radioactivity, using Geiger counters, scalers, and scintillation detecters. Administers therapeutic doses of radiopharmaceuticals under direction of physician. Follows radiation safety techniques in use and disposal of radioactive materials.
GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 89

078.361-022 ORTHOTICS ASSISTANT (medical ser.)

Assists ORTHOTIST (medical ser.) 078.261-018 in providing care and fabricating and fitting orthopedic braces to patients with disabling conditions of limbs and spine: Under guidance of and in consultation with ORTHOTIST (medical ser.), makes assigned casts, measurements, model modifications, and layouts. Performs fitting, including static and dynamic alignments. Evaluates orthopedic braces on patient to ensure fit, function, and workmanship. Repairs and maintains orthopedic braces. May be responsible for performance of other personnel. May also perform functions of PROSTHETICS ASSISTANT (medical ser.) 078.361-026 and be designated Orthotics-Prosthetics Assistant (medical ser.).
GOE: 05.05.11 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 77

078.361-026 PROSTHETICS ASSISTANT (medical ser.)

Assists PROSTHETIST (medical ser.) 078.261-022 in providing care to and fabricating and fitting protheses for patients with partial or total absence of limb: Under direction of PROSTHETIST (medical ser.), makes assigned casts measurements, and model modifications. Performs fitting, including static and dynamic alignments. Evaluates prosthesis on patient to ensure fit, function, and quality of work. Repairs and maintains prostheses. May be responsible for performance of other personnel. May also perform functions of ORTHOTICS ASSISTANT (medical ser.) 078.361-022.
GOE: 05.05.11 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 77

078.361-034 RADIATION-THERAPY TECHNOLOGIST (medical ser.)

Provides radiation therapy to patients as prescribed by RADIOLOGIST (medical ser.) 070.101-090, according to established practices and standards. Reviews prescription, diagnosis, patient chart, and identification. Acts as liaison with physicist and supportive care personnel. Prepares equipment, such as immobilization, treatment, and protection devices, and positions patient according to prescription. Enters data into computer and sets controls to operate and adjust equipment and regulate dosage. Observes and reassures patient during treatment and reports unusual reactions to physician. Photographs treated area of patient and processes film. Maintains records, reports, and files as required. Follows principles of radiation protection for patient, self, and others. May assist in dosimetry procedures and tumor localization. May train therapy students.
GOE: 10.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

078.361-038 OPHTHALMIC TECHNICIAN (medical ser.)

Tests and measures eye function to assist OPHTHALMOLOGIST (medical ser.) 070.101-058 to diagnose and treat eye disorders and disease: Tests pa-

tient's far acuity, near acuity, peripheral vision, depth perception, and color perception to assist OPHTHALMOLOGIST (medical ser.) to diagnose and treat eye disorders and disease. Examines eye, using slit lamp, for abnormalities of cornea, and anterior and posterior chambers. Applies drops to anesthetize, dilate, or medicate eyes. Measures intraocular pressure of eyes (glaucoma test). Tests patient's field of vision, including central and peripheral vision, for defects, and charts test results on graph paper. Measures axial length of eye, using ultrasound equipment. Performs other tests and measurements as requested by physician. Gives instructions to patients concerning eye care. May supervise other technicians and be known as Chief Ophthalmic Technician (medical ser.).
GOE: 10.03.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 89

078.362-010 AUDIOMETRIST (profess. & kin.) alternate titles: audiometric technician; hearing-test technician

Administers audiometric screening and threshold tests, generally pure-tone air conduction, to individuals or groups, under supervision of AUDIOLOGIST (medical ser.) or OTOLARYNGOLOGIST (medical ser.). Fits earphones on subject and provides instruction on procedures to be followed. Adjusts audiometer to control sound emitted and records subjects' responses. Refers individuals to AUDIOLOGIST (medical ser.) for interpretation of test results and need for more definitive hearing examination or to physician for medical examination.
GOE: 10.03.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

078.362-014 DIALYSIS TECHNICIAN (medical ser.) alternate titles: hemodialysis technician

Sets up and operates hemodialysis machine to provide dialysis treatment for patients with kidney failure: Attaches dialyzer and tubing to machine to assemble for use. Mixes dialysate, according to formula. Primes dialyzer with saline or heparinized solution to prepare machine for use. Transports patient to dialysis room and positions patient on lounge chair at hemodialysis machine. Takes and records patient's predialysis weight, temperature, blood pressure, pulse rate, and respiration rate. Explains dialysis procedure and operation of hemodialysis machine to patient before treatment to allay anxieties. Cleans area of access (fistula, graft, or catheter), using antiseptic solution. Connects hemodialysis machine to access in patient's forearm or catheter site to start blood circulating through dialyzer. Inspects equipment settings, including pressures, conductivity (proportion of chemicals to water), and temperature to ensure conformance to safety standards. Starts blood flow pump at prescribed rate. Inspects venous and arterial pressures as registered on equipment to ensure pressures are within established limits. Calculates fluid removal or replacement to be achieved during dialysis procedure. Monitors patient for adverse reaction and hemodialysis machine for malfunction. Takes and records patient's postdialysis weight, temperature, blood pressure, pulse rate, and respiration rate. May fabricate parts, such as cannulas, tubing, catheters, connectors, and fittings, using handtools.
GOE: 10.02.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 89

078.362-018 ELECTROCARDIOGRAPH TECHNICIAN (medical ser.) alternate titles: ecg technician; ekg technician

Produces recordings of electromotive variations in patient's heart muscle, using electrocardiograph (ECG), to provide data for diagnosis of heart ailments. Attaches electrodes to chest, arms, and legs of patient. Connects electrode leads to electrocardiograph and starts machine. Moves electrodes along specified area of chest to produce electrocardiogram that records electromotive variations occurring in different areas of heart muscle. Monitors electrocardiogram for abnormal patterns. Keys information into machine or marks tracing to indicate positions of chest electrodes. Replenishes supply of paper and ink in machine and reports malfunctions. Edits and forwards final test results to attending physician for analysis and interpretation. May attach electrodes of Holter monitor (electrocardiograph) to patient to record data over extended period of time.
GOE: 10.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 87

078.362-022 ELECTROENCEPHALOGRAPHIC TECHNOLOGIST (medical ser.) alternate titles: eeg technologist

Measures electrical activity of brain waves, using electroencephalograph (EEG) instrument, and conducts evoked potential response tests for use in diagnosis of brain and nervous system disorders: Measures patient's head and other body parts, using tape measure, and marks points where electrodes are to be placed. Attaches electrodes to predetermined locations, and verifies functioning of electrodes and recording instrument. Operates recording instruments (EEG and evoked potentials) and supplemental equipment and chooses settings for optimal viewing of nervous system. Records montage (electrode combination) and instrument settings, and observes and notes patient's behavior during test. Conducts visual, auditory, and somatosensory evoked potential response tests to measure latency of response to stimuli. Writes technical reports summarizing test results to assist physician in diagnosis of brain disorders. May perform other physiological tests, such as electrocardiogram, electrooculogram, and ambulatory electroencephalogram. May perform video monitoring of patient's actions during test. May monitor patient during surgery, using EEG or evoked potential instrument. May supervise other technologists and be known as Chief Electroencephalographic Technologist (medical ser.).
GOE: 10.03.01 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 89

078.362-026 RADIOLOGIC TECHNOLOGIST (medical ser.) alternate titles: radiographer; x-ray technologist

Operates radiologic equipment to produce radiographs (x rays) of body for diagnostic purposes, as directed by RADIOLOGIST (medical ser.) 070.101-090: Positions patient on examining table and adjusts immobilization devices to obtain optimum views of specified area of body requested by physician. Explains procedures to patient to reduce anxieties and obtain patient cooperation. Moves x-ray equipment into specified position and adjusts equipment controls to set exposure factors, such as time and distance, based on knowledge of radiographic exposure techniques and protocols. Practices radiation protection techniques, using beam restrictive devices, patient shielding skills, and knowledge of applicable exposure factors, to minimize radiation to patient and staff. May operate mobile x-ray equipment in operating room, emergency room, or at patient's bedside. May specialize in production of screening and diagnostic x rays for detection of breast tumors and be known as Radiologic Technologist, Mammogram (medical ser.).
GOE: 10.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

078.362-030 CARDIOPULMONARY TECHNOLOGIST (medical ser.) alternate titles: cardiovascular technologist

Performs diagnostic tests of cardiovascular and pulmonary systems of patients to aid physician in diagnosis and treatment of heart, lung, and blood vessel disorders: Prepares patient for test and explains procedures to obtain cooperation and reassure patient. Conducts electrocardiogram, phonocardiogram, echocardiogram, stress testing, and other tests to aid in diagnosis of cardiovascular system, using variety of specialized electronic test equipment, recording devices, and laboratory instruments. Conducts tests of pulmonary system to aid physician in diagnosis of pulmonary disorders, using spirometer and other respiratory testing equipment. Operates multichannel physiologic monitor, as part of cardiac catheterization team, to measure and record functions of cardiovascular and pulmonary systems of patient during cardiac catheterization. Alerts physician to instrument readings outside normal ranges during cardiac catheterization procedures. Provides test results to physician.
GOE: 10.03.01 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 89

078.362-034 PERFUSIONIST (medical ser.)

Sets up and operates heart-lung machine in hospital to take over functions of patient's heart and lungs during surgery or respiratory failure: Reviews patient medical history and chart, and consults with surgeon or physician to obtain patient information needed to set up heart-lung machine and associated equipment. Selects, assembles, sets up, and tests heart-lung machine to ensure that machine and associated equipment function according to specifications. Operates heart-lung machine to regulate blood circulation and composition, to administer drugs and anesthetic agents, and to control body temperature during surgery or respiratory failure of patient. Monitors and observes operation of heart-lung machine and patient's physiologic variables such as blood temperature, blood composition, and flow rate, and adjusts equipment to maintain normal body functions. Cleans and adjusts parts of heart-lung machine.
GOE: 10.03.02 STRENGTH: M GED: R4 M5 L4 SVP: 7 DLU: 88

078.362-038 ELECTROMYOGRAPHIC TECHNICIAN (medical ser.) alternate titles: emg technician

Measures electrical activity in peripheral nerves, using electromyograph (EMG) instrument, for use by physician in diagnosing neuromuscular disorders: Explains procedures to patient to obtain cooperation and relieve anxieties during test. Rubs electrode paste on patient's skin to ensure contact of electrodes. Attaches surface recording electrodes to extremity in which activity is being measured to detect electrical impulse. Attaches electrodes to electrode cables or leads connected to EMG instrument and selects nerve conduction mode on EMG. Operates EMG instrument to record electrical activity in peripheral nerves. Presses button on manually held surface stimulator electrode to deliver pulse and send electrical charge along peripheral nerve. Monitors response on oscilloscope and presses button to record nerve conduction velocity. Measures and records time and distance between stimulus and response, manually or using computer, and calculates velocity of electrical impulse in peripheral nerve. Removes electrodes from patient upon conclusion of test and cleans electrode paste from skin, using alcohol and cotton.
GOE: 10.03.01 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 90

078.362-042 POLYSOMNOGRAPHIC TECHNICIAN (medical ser.) alternate titles: polysomnographic technologist

Measures electrical activity of patient's brain waves and other physiological variables, using *polysomnograph*, to aid physician in diagnosis and treatment of sleep disorders: Applies surface electrodes to patient's head, using adhesive paste or tape, to obtain electroencephalogram (EEG) measurement and applies other combinations of sensors and electrodes to patient to obtain measurements such as electromyogram (EMG), electrooculogram (EOG), electrocardiogram (EKG), air flow respiratory effort, and oxygen saturation, as requested by physician and following established procedures. Operates closed circuit television camera to observe patient during test and to record patient's sleep activities. Operates polysomnograph equipment to record electrical activity of brain waves and other physiological variables and records notes on graph to eliminate from consideration physiological measurements caused by such activities as patient opening eyes, turning head, or turning body. Studies polysomnogram to recognize arrhythmias and abnormal respiratory patterns and calls physician or other emergency personnel if needed. Measures durations of brain waves recorded on polysomnograms, using millimeter ruler. Studies characteristics of completed polysomnogram tracings and summarizes data showing stages of sleep, abnormal breathing events, periodic leg movements, arrhythmias, and other information, applying knowledge of polysomnograph testing principles. Enters data into computer and writes report incorporating patient's medical history, completed patient questionnaires, previous and current polysomnogram in-

formation, presence and type of abnormality, and other information for analysis by physician or other health professional. May apply electrodes to patient's head, using pins. May supervise and coordinate activities of other technicians and be known as Chief Polysomnographic Technician (medical ser.).
GOE: 10.03.01 STRENGTH: M GED: R4 M4 L4 SVP: 4 DLU: 89

078.362-046 SPECIAL PROCEDURES TECHNOLOGIST, ANGIOGRAM (medical ser.) alternate titles: angiographer; radiographer, angiogram

Operates diagnostic imaging equipment to produce contrast enhanced radiographs of blood vessels to aid physician in diagnosis and treatment of disease: Positions patient in examining position, using immobilization devices, such as head or shoulder braces. Operates fluoroscope to aid physician to view and guide wire or catheter through blood vessel to area of interest. Fills automatic injector with contrast media, sets flow rate, and activates injection of contrast media into blood vessels of patient, as directed by physician. Monitors video display of area of interest and adjusts density and contrast to obtain optimum exposure. Starts filming sequence. Delivers film to dark room to be developed and reviews developed x rays for accuracy of positioning and quality of exposure techniques.
GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 89

078.362-050 SPECIAL PROCEDURES TECHNOLOGIST, CARDIAC CATHETERIZATION (medical ser.) alternate titles: radiographer, cardiac catheterization; special vascular imaging technologist

Operates diagnostic imaging equipment to produce contrast enhanced radiographs of heart and cardiovascular system (angiocardiograms), during cardiac catheterization, to aid physician in diagnostic evaluation and treatment: Positions and immobilizes patient on examining table, using head and shoulder braces and following specified protocols. Enters technical factors determined by protocol such as amount and quality of radiation beam, and specified filming sequence, into computer. Raises and lowers examining table and manipulates and positions x-ray tube in response to instructions from physician. Starts automatic injection of contrast medium into blood vessels of patient. Activates fluoroscope and 35 mm motion picture camera (cinefluorography) to produce images that assist physician in guiding catheter through cardiovascular system of patient. Observes gauges, recorder, and video screens of multichannel data analysis system that indicates blood pressure, cardiac output, and respiration, during imaging of cardiovascular system. Alerts physician to changes in patient responses. May assist physician in interventional procedures, such as instilling enzymes or inserting balloon in blood vessels to remove plaque or other blockage.
GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 89

078.362-054 SPECIAL PROCEDURES TECHNOLOGIST, CT SCAN (medical ser.) alternate titles: ct technologist

Operates computed tomography (CT) scanner to produce cross-sectional radiographs of patient's body for diagnostic purposes: Positions and immobilizes patient on examining table, using supportive devices to obtain precise patient position and following protocols specified by RADIOLOGIST (medical ser.) 070.101-090. Administers contrast media orally or assists physician in intravenous administration. Enters data, such as type of scan requested, slice thickness, scan time, and other technical data into computer, using knowledge of radiologic technology and computed tomography. Starts CT scanner to scan designated anatomical area of patient. Talks to patient over intercom system and observes patient through window of control room to monitor patient safety and comfort. Views images of organs or tissue on video display screen to ensure quality of pictures. Starts camera to produce radiographs. Evaluates radiographs, video tape, and computer generated information for technical quality.
GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 89

078.362-058 SPECIAL PROCEDURES TECHNOLOGIST, MAGNETIC RESONANCE IMAGING (MRI) (medical ser.) alternate titles: magnetic resonance imaging technologist

Operates magnetic resonance imaging equipment to produce cross-sectional images (photographs) of patient's body for diagnostic purposes: Interviews patient to explain magnetic resonance imaging procedures and to request removal of metal objects which are hazardous to patient and equipment when magnet is activated. Positions patient on examining table and places specified coil (receiver) such as head coil or knee coil, close to area of interest, following protocols requested by RADIOLOGIST (medical ser.) 070.101-090. Demonstrates use of microphone that allows patient and technologist to communicate during examination. Enters data, such as patient history, anatomical area to be scanned, orientation specified, and position of entry into aperture of magnetic resonance imaging equipment (head or feet first), into computer. Keys commands to specify scan sequences, and adjust transmitters and receivers, into computer. Observes patient through window of control room and on closed circuit TV screen to monitor patient safety and comfort. Views images of area being scanned on video display screen to ensure quality of pictures. Keys in data on keyboard of camera to photograph images. Alerts staff entering magnet room to danger of wearing or carrying metal around magnet.
GOE: 10.02.02 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 90

078.362-062 STRESS TEST TECHNICIAN (medical ser.) alternate titles: stress technician

Produces recordings of electromotive variations in action of heart muscle, using electrocardiograph, while patient walks on treadmill, under direction of physician, to provide data for diagnosis of heart ailments: Attaches electrodes to patient's arms, legs, and chest area, according to specified pattern, and connects electrode leads to electrocardiograph, to obtain electrocardiogram. Explains testing procedures to patient and obtains consent form. Starts treadmill at speed directed by physician. Starts electrocardiograph and records data, such as angle and speed of treadmill, patient's indications of pain, and measurements of blood pressure. Informs physician of wave abnormalities on electrocardiogram. Stands alongside patient during test to lend support if necessary. Removes recorder strip printout from machine upon conclusion of test to obtain permanent record of test. Edits and mounts representative samples of tracings for patient's record, indicating time of test measurement and bodily factors that could have affected recording. May conduct electrocardiograph test of resting patient.
GOE: 10.03.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 88

078.364-010 ULTRASOUND TECHNOLOGIST (medical ser.) alternate titles: diagnostic medical sonographer

Produces two-dimensional ultrasonic recordings of internal organs, using ultrasound equipment, for use by physician in diagnosis of disease and study of malfunction of organs: Selects equipment for use in ultrasound setup according to specifications of examination. Explains process to patient, and instructs and assists patient in assuming physical position for examination. Selects transducer and adjusts equipment controls according to organ to be examined, depth of field, and other specifications of test. Keys test data and patient information into computer of ultrasound equipment to maintain record of test results. Moves transducer, by hand, over specified area of body and observes sound wave display screen to monitor quality of ultrasonic pattern produced. Starts equipment which produces images of internal organs and records diagnostic data on magnetic tape, computer disk, strip printout, or film. Photographs images of organs shown on display module, or removes strip printout from equipment, to obtain permanent record of internal examination. Discusses test results with supervisor or attending physician.
GOE: 02.04.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 89

078.364-014 ECHOCARDIOGRAPH TECHNICIAN (medical ser.) alternate titles: diagnostic cardiac sonographer

Produces two-dimensional ultrasonic recordings and Doppler flow analyses of heart and related structures, using ultrasound equipment, for use by physician in diagnosis of heart disease and study of heart: Explains procedures to patient to obtain cooperation and reduce anxieties of patient. Attaches electrodes to patient's chest to monitor heart rhythm and connects electrodes to electrode leads of ultrasound equipment. Adjusts equipment controls according to physician's orders and areas of heart to be examined. Keys patient information into computer keyboard on equipment to record information on video cassette and strip printout of test. Starts ultrasound equipment that produces images of real time tomographic cardiac anatomy, and adjusts equipment to obtain quality images. Moves transducer, by hand, over patient's heart areas, observes ultrasound display screen, and listens to Doppler signals to acquire data for measurement of blood flow velocities. Prints pictures of graphic analysis recordings and removes video cassette for permanent record of internal examination. Measures heart wall thicknesses and chamber sizes recorded on strip printout, using calipers and ruler, or keys commands into computer to measure thicknesses and chamber sizes of heart on video tape, and compares measurement to standard norms to identify abnormalities in heart. Measures blood flow velocities and calculates data, such as cardiac physiology and valve areas for evaluation of cardiac function by physician. Reviews test results with interpreting physician.
GOE: 10.03.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 88

078.367-010 CARDIAC MONITOR TECHNICIAN (medical ser.) alternate titles: telemetry technician

Monitors heart rhythm pattern of patients in special care unit of hospital to detect abnormal pattern variances, using telemetry equipment: Reviews patient information to determine normal heart rhythm pattern, current pattern, and prior variances. Observes screen of cardiac monitor and listens for alarm to identify abnormal variation in heart rhythm. Informs supervisor or NURSE, GENERAL DUTY (medical ser.) 075.364-010 of variances to initiate examination of patient. Measures length and height of patient's heart rhythm pattern on graphic tape readout, using calipers, and posts information on patient records. Answers calls for assistance from patients and inquiries concerning patients from medical staff, using intercom and call director. May perform duties as described under ELECTROCARDIOGRAPH TECHNICIAN (medical ser.) 078.362-018.
GOE: 10.03.01 STRENGTH: S GED: R3 M2 L2 SVP: 5 DLU: 86

078.381-014 MEDICAL-LABORATORY TECHNICIAN (medical ser.) alternate titles: laboratory assistant; medical technician

Performs routine tests in medical laboratory to provide data for use in diagnosis and treatment of disease: Conducts quantitative and qualitative chemical analyses of body fluids, such as blood, urine, and spinal fluid, under supervision of MEDICAL TECHNOLOGIST (medical ser.) 078.261-038. Performs blood counts, using microscope. Conducts blood tests for transfusion purposes. May draw blood from patient's finger, ear lobe, or vein, observing principles of asepsis to obtain blood samples. May specialize in hematology, blood bank, cytology, histology, or chemistry.
GOE: 02.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 89

078.384-010 CEPHALOMETRIC ANALYST (medical ser.) alternate titles: cephalometric technician; cephalometric tracer; tracer

Traces head x rays and illustrates cosmetic result of proposed orthodontic treatment: Traces frontal and lateral head x rays onto transparent paper, using template, compass, protractor, and knowledge of cranial-facial skeletal structure. Traces lower teeth from occlusal x ray or photograph to locate key points defining true curve of lower dental arch. Records cephalometric measurements to prepare data for computer analysis, using electronic data recording equipment. Compiles data from tracings and computer plot sheets to illustrate results of proposed surgery or other orthodontic treatment.

GOE: 02.04.02 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

078.664-010 ORTHOPEDIC ASSISTANT (medical ser.) alternate titles: orthopedic cast specialist

Applies, adjusts, and removes casts, assembles traction apparatus, and fits strappings and splints for orthopedic patients according to medical staff instructions, using handtools: Covers injured areas with specified protective materials, such as stockinette bandages, gauze, or rubber pads, preparatory to cast application. Wets, wraps, and molds plaster bandages around area of fracture. Trims plaster, using electric cutter. Removes whole and broken casts and alters position of cast to change setting of patient's limb or body part as directed. Assembles wooden, metal, plastic, or plaster material to make orthopedic splints, using handtools. Rigs pulleys, ropes, and frames to assemble fracture beds, using handtools. Attaches traction supports to patient's limb and adjusts support to specified tension. Assembles exercise frames, using handtools. Adjusts crutches and canes to fit patient. Instructs patients in care of and assists patients in walking with casts, braces, and crutches.

GOE: 10.03.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

078.687-010 LABORATORY ASSISTANT, BLOOD AND PLASMA (medical ser.; pharmaceut.)

Performs routine laboratory tasks related to processing whole blood and blood components. Centrifuges whole blood to produce various components including packed red cells, platelet concentrate, washed red cells, and plasma. Examines blood stock at designated intervals to confirm that all units are in satisfactory condition. Observes thermostats on storage units to confirm that temperature remains constant at designated temperature. Inspects blood units returned from hospitals to determine whether plasma can be salvaged and if so refers to plasma salvage unit. Confirms that sedimentation has occurred, that color is normal, and that containers are in satisfactory condition. Cleans and maintains laboratory equipment, supplies, and laboratory. Performs related clerical duties including updating statistical records, labeling tubes, and scheduling processing runs.

GOE: 02.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

079 OCCUPATIONS IN MEDICINE AND HEALTH, N.E.C.

This group includes occupations, not elsewhere classified, concerned with the health care of humans or animals.

079.021-014 MEDICAL PHYSICIST (profess. & kin.)

Applies knowledge and methodology of science of physics to all aspects of medicine, to address problems related to diagnosis and treatment of human disease: Advises and consults with physicians in such applications as use of ionizing radiation in diagnosis, therapy, treatment planning with externally delivered radiation as well as use of internally implanted radioactive sources, complete subject of x-ray equipment, calibration, and dosimetry; medical uses of ultrasound and infrared; bioelectrical investigation of brain and heart; mathematical analysis and applications of computers in medicine; formulation of radiation protection guides and procedures specific to hospital environment; development of instrumentation for improved patient care and clinical service. Plans, directs, conducts, and participates in supporting programs to ensure effective and safe use of radiation and radionuclides in human beings by physician specialist. Teaches principles of medical physics to physicians, residents, graduate students, medical students, and technologists by means of lectures, problem solving, and laboratory sessions. Directs and participates in investigations of biophysical techniques associated with any branch of medicine. Conducts research in development of diagnostic and remedial procedures and develops instrumentation for specific medical applications. Acts as consultant to education, medical research, and other professional groups and organizations.

GOE: 02.02.01 STRENGTH: L GED: R6 M6 L6 SVP: 8 DLU: 77

079.101-010 CHIROPRACTOR (medical ser.) alternate titles: chiropractic; doctor, chiropractic

Diagnoses and treats musculoskeletal conditions of spinal column and extremities to prevent disease and correct abnormalities of body believed to be caused by interference with nervous system: Examines patient to determine nature and extent of disorder. Performs diagnostic procedures including physical, neurologic, and orthopedic examinations, laboratory tests, and other procedures, using x-ray machine, proctoscope, electrocardiograph, otoscope, and other instruments and equipment. Manipulates spinal column and other extremities to adjust, align, or correct abnormalities caused by neurologic and kinetic articular dysfunction. Utilizes supplementary measures, such as exercise, rest, water, light, heat, and nutritional therapy.

GOE: 02.03.04 STRENGTH: M GED: R5 M4 L5 SVP: 8 DLU: 89

079.101-014 DOCTOR, NATUROPATHIC (medical ser.)

Diagnoses, treats, and cares for patients, using system of practice that bases treatment of physiological functions and abnormal conditions on natural laws governing human body: Utilizes physiological, psychological, and mechanical methods, such as air, water, light, heat, earth, phytotherapy, food and herb therapy, psychotherapy, electrotherapy, physiotherapy, minor and orificial surgery, mechanotherapy, naturopathic corrections and manipulation, and natural methods or modalities, together with natural medicines, natural processed foods, and herbs and nature's remedies. Excludes major surgery, therapeutic use of x ray and radium, and use of drugs, except those assimilable substances containing elements or compounds which are components of body tissues and are physiologically compatible to body processes for maintenance of life.

GOE: 02.03.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

079.101-018 OPTOMETRIST (medical ser.)

Examines eyes to determine nature and degree of vision problem or eye disease and prescribes corrective lenses or procedures: Examines eyes and performs various tests to determine visual acuity and perception and to diagnose diseases and other abnormalities, such as glaucoma and color blindness. Prescribes eyeglasses, contact lenses, and other vision aids or therapeutic procedures to correct or conserve vision. Consults with and refers patients to OPHTHALMOLOGIST (medical ser.) 070.101-058 or other health care practitioner if additional medical treatment is determined necessary. May prescribe medications to treat eye diseases if state laws permit. May specialize in type of services provided, such as contact lenses, low vision aids or vision therapy, or in treatment of specific groups, such as children or elderly patients. May conduct research, instruct in college or university, act as consultant, or work in public health field.

GOE: 02.03.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

079.101-022 PODIATRIST (medical ser.)

Diagnoses and treats diseases and deformities of human foot: Diagnoses foot ailments, such as tumors, ulcers, fractures, skin or nail diseases, and congenital or acquired deformities, utilizing diagnostic aids, such as urinalysis, blood tests, and x-ray analysis. Treats deformities, such as flat or weak feet and foot imbalance, by mechanical and electrical methods, such as whirlpool or paraffin baths and short wave and low voltage currents. Treats conditions, such as corns, calluses, ingrowing nails, tumors, shortened tendons, bunions, cysts, and abscesses by surgical methods, including suturing, medications, and administration of local anesthetics. Prescribes drugs. Does not perform foot amputations. Corrects deformities by means of plaster casts and strappings. Makes and fits prosthetic appliances. Prescribes corrective footwear. Advises patients concerning continued treatment of disorders and proper foot care to prevent recurrence. Refers patients to physician when symptoms observed in feet and legs indicate systemic disorders, such as arthritis, heart disease, diabetes, or kidney trouble. May treat bone, muscle, and joint disorders and be designated Podiatrist, Orthopedic (medical ser.); childrens' foot diseases and be designated Podopediatrician (medical ser.), or perform surgery and be designated Podiatric Surgeon (medical ser.).

GOE: 02.03.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

079.117-010 EMERGENCY MEDICAL SERVICES COORDINATOR (medical ser.)

Directs medical emergency service program: Coordinates activities of persons involved in rescue, transportation, and care of accident or catastrophe victims, and others requiring emergency medical assistance. Arranges for establishment of emergency medical facilities, staffing of facilities by emergency-trained medical and auxiliary personnel, installation of telecommunication network components, and acquisition of emergency vehicles. Maintains records of facilities and personnel, and periodically inspects facilities to ensure capability of meeting area's emergency needs. Maintains telecommunication contact with mobile and stationary units comprising emergency service network to coordinate activities of personnel, enlist services of other protective agencies, or provide alternate directions to onscene emergency personnel when planned procedures are not feasible. Develops, plans, and participates in training programs for ambulance and rescue personnel. Cooperates with schools and community organizations to encourage public interest in and knowledge of basic and advanced first aid training, and assists groups in development and presentation of classes. Maintains records of emergency medical service activities, for coordination with records prepared by cooperating institutions, to provide data for evaluation of program. Prepares reports stating progress, problems, and plans for future implementation of emergency service for community or area, for review by officials of sponsoring agency. Confers with coordinators of emergency programs in other areas to discuss problems, coordinate activities, and cooperate in area or statewide plans.

GOE: 11.07.02 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

079.117-014 PUBLIC HEALTH EDUCATOR (profess. & kin.)

Plans, organizes, and directs health education programs for group and community needs: Conducts community surveys and collaborates with other health specialists and civic groups to ascertain health needs, develop desirable health goals, and determine availability of professional health services. Develops and maintains cooperation between public, civic, professional, and voluntary agencies. Prepares and disseminates educational and informational materials. Promotes health discussions in schools, industry, and community agencies. May plan for and provide educational opportunities for health personnel.

GOE: 11.07.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

079.117-018 SANITARIAN (profess. & kin.)
Plans, develops, and executes environmental health program: Organizes and conducts training program in environmental health practices for schools and other groups. Determines and sets health and sanitation standards and enforces regulations concerned with food processing and serving, collection and disposal of solid wastes, sewage treatment and disposal, plumbing, vector control, recreational areas, hospitals and other institutions, noise, ventilation, air pollution, radiation, and other areas. Confers with government, community, industrial, civil defense, and private organizations to interpret and promote environmental health programs. Collaborates with other health personnel in epidemiological investigations and control. Advises civic and other officials in development of environmental health laws and regulations.
GOE: 11.10.03 STRENGTH: M GED: R6 M5 L6 SVP: 8 DLU: 77

079.127-010 INSERVICE COORDINATOR, AUXILIARY PERSONNEL (medical ser.)
Plans and conducts orientation and training program for nonprofessional nursing personnel: Organizes and writes nursing procedure manuals and guides for use by auxiliary nursing personnel. Schedules classes, and teaches routine nursing procedures to auxiliary personnel. Explains policies, rules, employee benefits, and organizational structure of institution. Discusses functions of various hospital departments and arranges for tour of physical plant. Assists nursing service supervisory personnel in solving problems of in-service training, promotions, transfers, and discipline of auxiliary personnel.
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

079.131-010 DIRECTOR, SPEECH-AND-HEARING (medical ser.)
Directs and coordinates activities of personnel in hospital speech and hearing department engaged in research and in testing and treating patients according to established policies: Organizes and establishes personnel procedures, including hiring and training, counsels employees, and evaluates work performance. Confers with ADMINISTRATOR, HEALTH CARE FACILITY (medical ser.) 187.117-010 and committee members to request expenditures for equipment, supplies, and personnel. Meets with ADMINISTRATOR, HEALTH CARE FACILITY (medical ser.), department officials, and staff members to explain new techniques and procedures or to demonstrate new and innovative equipment. Plans and directs research and treatment programs to provide direction and assistance to staff members. Conducts workshops and seminars to develop staff expertise and knowledge. Analyzes data and maintains records of research and treatment programs.
GOE: 11.07.02 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 86

079.151-010 TRANSPLANT COORDINATOR (medical ser.) alternate titles: organ transplant coordinator
Plans and coordinates in-hospital transplant services, solicits organ donors, and assists medical staff in organ retrieval for patients undergoing organ or tissue transplantation: Communicates with donors, patients, and health team members to ensure comprehensive documentation, including informed consent of potential organ donor and transplant recipient, equitable access to transplantation system, and access to treatment alternatives. Analyzes medical data of potential organ donors and transplant recipients from medical and social records, physical examination, and consultation with health team members to perform preliminary physical assessment and screen potential recipients and donors. Schedules recipient and donor laboratory tests to determine histocompatibility of blood or tissue of recipient and donor. Compares collected data to normal values and correlates and summarizes laboratory reports, x rays, and other tests to assist physician to determine medical suitability of procedure, to identify potential complicating factors, and to evaluate recipient and donor compatibility. Solicits medical and community groups for organ donors and assists medical team in retrieval of organs for transplantation, using medical instruments. Coordinates in-hospital services and counsels recipient and donor to alleviate anxieties and assist recipient and donor throughout procedure. Advises post-operative patients on therapies for managing health after transplant and serves as team member to monitor and assess progress of patient and offer advice and assistance to patient following transplant. May coordinate in-hospital services and be known as Clinical Transplant Coordinator (medical ser.). May coordinate organ and tissue procurement services and be known as Procurement Transplant Coordinator (medical ser.).
GOE: 10.02.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 89

079.157-010 HYPNOTHERAPIST (profess. & kin.)
Induces hypnotic state in client to increase motivation or alter behavior patterns: Consults with client to determine nature of problem. Prepares client to enter hypnotic state by explaining how hypnosis works and what client will experience. Tests subject to determine degree of physical and emotional suggestibility. Induces hypnotic state in client, using individualized methods and techniques of hypnosis based on interpretation of test results and analysis of client's problem. May train client in self-hypnosis conditioning.
GOE: 10.02.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

079.161-010 INDUSTRIAL HYGIENIST (profess. & kin.)
Conducts health program in industrial plant or governmental organization to recognize, eliminate, and control occupational health hazards and diseases: Collects samples of dust, gases, vapors, and other potentially toxic materials for analysis. Investigates adequacy of ventilation, exhaust equipment, lighting, and other conditions which may affect employee health, comfort, or efficiency. Conducts evaluations of exposure to ionizing and nonionizing radiation and to noise, and recommends measures to ensure maximum employee protection. Collaborates with INDUSTRIAL-HEALTH ENGINEER (profess. & kin.) and PHYSICIAN, OCCUPATIONAL (medical ser.) to institute control and remedial measures for hazardous and potentially hazardous conditions and equipment. Prepares reports including observations, analysis of contaminants, and recommendations for control and correction of hazards. Participates in educational meetings to instruct employees in matters pertaining to occupational health and prevention of accidents. May specialize in particular area, such as collection and analysis of samples.
GOE: 11.10.03 STRENGTH: M GED: R5 M4 L5 SVP: 8 DLU: 77

079.167-010 COMMUNITY-SERVICES-AND-HEALTH-EDUCATION OFFICER (government ser.)
Plans and directs statewide program of public health education and promotes establishment of local health services: Directs workers engaged in preparation and distribution of health information materials, such as brochures, films, weight charts, and first-aid kits. Promotes establishment or expansion of local health services and provides technical assistance to individuals and groups conducting health conferences, workshops, and training courses. Answers health information requests received by department or reviews correspondence prepared by others. Coordinates special health education campaigns during epidemics, rabies outbreaks, instances of food poisoning, and similar emergencies. May direct health education activities in public schools.
GOE: 11.07.02 STRENGTH: S GED: R6 M5 L6 SVP: 8 DLU: 77

079.167-014 MEDICAL-RECORD ADMINISTRATOR (medical ser.)
Plans, develops, and administers health information system for health care facility consistent with standards of accrediting and regulatory agencies and requirements of health care system: Develops and implements policies and procedures for documenting, storing, and retrieving information, and for processing medical-legal documents, insurance data, and correspondence requests, in conformance with federal, state, and local statutes. Supervises staff, directly or through subordinates, in preparing and analyzing medical documents. Participates in development and design of computer software for computerized health information system. Coordinates medical care evaluation with medical staff and develops criteria and methods for such evaluation. Develops in-service educational materials and conducts instructional programs for health care personnel. Analyzes patient data for reimbursement, facility planning, quality of patient care, risk management, utilization management, and research. May manage medical records department and be known as Director, Medical Records (medical ser.).
GOE: 11.07.02 STRENGTH: L GED: R6 M5 L6 SVP: 8 DLU: 88

079.267-010 UTILIZATION-REVIEW COORDINATOR (medical ser.)
Analyzes patient records to determine legitimacy of admission, treatment, and length of stay in health-care facility to comply with government and insurance company reimbursement policies: Analyzes insurance, governmental, and accrediting agency standards to determine criteria concerning admissions, treatment, and length of stay of patients. Reviews application for patient admission and approves admission or refers case to facility utilization review committee for review and course of action when case fails to meet admission standards. Compares inpatient medical records to established criteria and confers with medical and nursing personnel and other professional staff to determine legitimacy of treatment and length of stay. Abstracts data from records and maintains statistics. Determines patient review dates according to established diagnostic criteria. May assist review committee in planning and holding federally mandated quality assurance reviews. May supervise and coordinate activities of utilization review staff.
GOE: 11.07.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

079.271-010 ACUPUNCTURIST (medical ser.)
Administers specific theraputic treatment of symptoms and disorders amenable to acupuncture procedures, as specifically indicated by supervising physician: Reviews patient's medical history, physical findings, and diagnosis made by physician to ascertain symptoms or disorder to be treated. Selects needles of various lengths, according to location of insertion. Inserts needles at locations of body known to be efficacious to certain disorders, utilizing knowledge of acupuncture points and their functions. Leaves needles in patient for specific length of time, according to symptom or disorder treated, and removes needles. Burns bark of mugwort tree in small strainer to administer moxibustion treatment. Covers insertion area with cloth and rubs strainer over cloth to impart heat and assist in relieving patient's symptoms.
GOE: 02.03.04 STRENGTH: L GED: R5 M4 L5 SVP: 6 DLU: 77

079.271-014 ACUPRESSURIST (medical ser.)
Examines clients with pain, stress, or tension, determines acupressure techniques required to relieve problems, and demonstrates techniques to client, according to knowledge of acupressure methods and techniques: Directs client to lie on couch and positions client's arms and legs in relaxed position to facilitate examination and demonstration techniques. Questions clients, examines client's muscular system visually, and feels tissue around muscles, nerves, and blood vessels to locate knots and other blockages which indicate excessive accumulations of blood, fluids, and other substances in tissue. Determines cause of accumulations and acupressure techniques needed to increase circulation, according to knowledge of Asian acupuncture and pressure points and Western medical trigger points, bodywork techniques, such as Jin Shin, Do-In, Shiatsu, Swedish, and Esalen, and experience. Feels tissue around muscles, nerves, and blood ves-

sels to locate points and applies specified pressure at specified pressure points or muscles, using thumbs, fingers, palms, or elbows, to redirect accumulated body fluids into normal channels, according to acupressure knowledge, techniques, and experience. Discusses findings with client and explains diet and methods to prevent recurrence of problem. May be known according to specific method or combination of methods used, such as Gia Ahp, Jin Shin, Do-In, or Shiatsu.
GOE: 10.02.02 STRENGTH: M GED: R5 M3 L4 SVP: 5 DLU: 86

079.361-014 VETERINARY TECHNICIAN (medical ser.) alternate titles: animal health technician; animal technician; veterinary assistant

Performs variety of animal health care duties to assist VETERINARIAN (medical ser.) 073.101-010 in settings such as veterinarians' clinics, zoos, research laboratories, kennels, and commercial facilities: Prepares treatment room for examination of animals, and holds or restrains animals during examination, treatment, or innoculation. Administers injections, performs venipunctures, applies wound dressings, cleans teeth, and takes vital signs of animal, under supervision of veterinarian. Prepares patient, medications, and equipment for surgery, and hands instruments and materials to veterinarian during surgical procedures. Peforms routine laboratory tests, cares for and feeds laboratory animals, and assists professional personnel with research projects in commercial, public health, or research laboratories. Inspects products or carcasses when employed in food processing plants to ensure compliance with health standards. May assist veterinarian to artificially inseminate animals. May bathe and groom small animals.
GOE: 02.03.03 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 90

079.361-018 DENTAL ASSISTANT (medical ser.)

Assists dentist during examination and treatment of patients: Prepares patient, sterilizes and disinfects instruments, sets up instrument trays, prepares materials, and assists dentist during dental procedures. Takes and records medical and dental histories and vital signs of patient. Exposes dental diagnostic x rays. Makes preliminary impressions for study casts and occlusal registrations for mounting study casts. Pours, trims, and polishes study casts, fabricates custom impression trays from preliminary impressions, cleans and polishes removable appliances, and fabricates temporary restorations. Assists dentist in management of medical and dental emergencies. Instructs patients in oral hygiene and plaque control programs. Provides postoperative instructions prescribed by dentist. Records treatment information in patient records. Schedules appointments, prepares bills and receives payment for dental services, completes insurance forms, and maintains clerical records, manually or using computer. May clean teeth, using dental instruments. May apply protective coating of fluoride to teeth.
GOE: 10.03.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 89

079.362-010 MEDICAL ASSISTANT (medical ser.)

Performs any combination of following duties under direction of physician to assist in examination and treatment of patients: Interviews patients, measures vital signs, such as pulse rate, temperature, blood pressure, weight, and height, and records information on patients' charts. Prepares treatment rooms for examination of patients. Drapes patients with covering and positions instruments and equipment. Hands instruments and materials to doctor as directed. Cleans and sterilizes instruments. Inventories and orders medical supplies and materials. Operates x ray, electrocardiograph (EKG), and other equipment to administer routine diagnostic test or calls medical facility or department to schedule patients for tests. Gives injections or treatments, and performs routine laboratory tests. Schedules appointments, receives money for bills, keeps x ray and other medical records, performs secretarial tasks, and completes insurance forms. May key data into computer to maintain office and patient records. May keep billing records, enter financial transactions into bookeeping ledgers, and compute and mail monthly statements to patients.
GOE: 10.03.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 88

079.362-014 MEDICAL RECORD TECHNICIAN (medical ser.)

Compiles and maintains medical records of patients of health care delivery system to document patient condition and treatment: Reviews medical records for completeness and to abstract and code clinical data, such as diseases, operations, procedures and therapies, using standard classification systems. Compiles medical care and census data for statistical reports on types of diseases treated, surgery performed, and use of hospital beds, in response to inquiries from law firms, insurance companies, and government agencies. Maintains and utilizes variety of health record indexes and storage and retrieval systems. Operates computer to process, store, and retrieve health information. Assists MEDICAL-RECORD ADMINISTRATOR (medical ser.) 079.167-014 in special studies or research, as needed.
GOE: 07.05.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 88

079.362-018 TUMOR REGISTRAR (medical ser.)

Compiles and maintains records of hospital patients treated for cancer to provide data for physicians and research studies, utilizing tumor registry data system: Reviews hospital records to identify and compile patient data for use in cancer managment program and to comply with government regulations. Reviews patient's medical record, abstracts and codes information, such as demographic characteristics, history and extent of disease, diagnostic procedures and treatment, and enters data into computer. Contacts discharged patients, their families, and physicians to maintain registry with follow-up information, such as quality of life and length of survival of cancer patients. Prepares statistical reports, narrative reports and graphic presentations of tumor registry data for use by hospital staff, researchers, and other users of registry data. May supervise subordinate tumor registry staff and be known as Manager, Tumor Registry (medical ser.).
GOE: 07.05.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 89

079.364-010 CHIROPRACTOR ASSISTANT (medical ser.)

Aids CHIROPRACTOR (medical ser.) during physical examination of patients, gives specified office treatments, and keeps patients' records: Writes history of patient's accident or illness, and shows patient to examining room. Aids CHIROPRACTOR (medical ser.) in lifting and turning patient under treatment. Gives physiotherapy treatments, such as diathermy, galvanics, or hydrotherapy, following directions of CHIROPRACTOR (medical ser.). Takes and records patient's temperature and blood pressure, assists in x-ray procedures, and gives first aid. Answers telephone, schedules appointments, records treatment information on patient's chart, and fills out insurance forms. Prepares and mails patient's bills.
GOE: 10.03.02 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

079.364-014 OPTOMETRIC ASSISTANT (medical ser.)

Performs any combination of following tasks to assist OPTOMETRIST (medical ser) 079.101-018: Obtains and records patient's preliminary case history. Maintains records, schedules appointments, performs bookkeeping, correspondence, and filing. Prepares patient for vision examination; assists in testing for near and far acuity, depth perception, macula integrity, color perception, and visual field, utilizing ocular testing apparatus. Instructs patient in care and use of glasses or contact lenses. Works with patient in vision therapy. Assists patient in frame selection. Adjusts and repairs glasses. Modifies contact lenses. Maintains inventory of materials and cleans instruments. Assists in fabrication of eye glasses or contact lenses.
GOE: 10.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

079.364-018 PHYSICIAN ASSISTANT (medical ser.)

Provides health care services to patients under direction and responsibility of physician: Examines patient, performs comprehensive physical examination, and compiles patient medical data, including health history and results of physical examination. Administers or orders diagnostic tests, such as x ray, electrocardiogram, and laboratory tests, and interprets test results for deviations from normal. Performs therapeutic procedures, such as injections, immunizations, suturing and wound care, and managing infection. Develops and implements patient management plans, records progress notes, and assists in provision of continuity of care. Instructs and counsels patients regarding compliance with prescribed therapeutic regimens, normal growth and development, family planning, emotional problems of daily living, and health maintenance. May have training in particular medical specialty and be designated Anesthesiologist Assistant (medical ser.) or Surgeon Assistant (medical ser.).
GOE: 10.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

079.364-022 PHLEBOTOMIST (medical ser.)

Draws blood from patients or donors in hospital, blood bank, or similar facility for analysis or other medical purposes: Assembles equipment, such as tourniquet, needles, disposable containers for needles, blood collection devices, gauze, cotton, and alcohol on work tray, according to requirements for specified tests or procedures. Verifies or records identity of patient or donor and converses with patient or donor to allay fear of procedure. Applies tourniquet to arm, locates accessible vein, swabs puncture area with antiseptic, and inserts needle into vein to draw blood into collection tube or bag. Withdraws needle, applies treatment to puncture site, and labels and stores blood container for subsequent processing. May prick finger to draw blood. May conduct interviews, take vital signs, and draw and test blood samples to screen donors at blood bank.
GOE: 02.04.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 88

079.364-026 PARAMEDIC (medical ser.) alternate titles: emt-paramedic

Administers life support care to sick and injured persons in prehospital setting as authorized and directed by physician: Assesses nature and extent of illness or injury to establish and prioritize medical procedures to be followed or need for additional assistance. Restores and stabilizes heart rhythm on pulseless, nonbreathing patient, using defibrillator, or as directed by physician. Monitors cardiac patient, using electrocardiograph. Initiates intravenous fluids to administer medication or drugs, or to replace fluids lacking in body. Performs endotracheal intubation to open airways and ventilate patient. Administers injections of medications and drugs, following established protocols. Inflates pneumatic anti-shock garment on patient to improve blood circulation. Administers initial treatment at emergency scene and takes and records patient's vital signs. Assists in extricating trapped victims and transports sick and injured persons to treatment center. Observes, records, and reports to physician patient's condition and reaction to drugs, treatments, and significant incidents. May drive mobile intensive care unit to emergency scene. May serve as team leader for EMERGENCY MEDICAL TECHNICIANS (medical ser.) 079.374-010. May communicate with physician and other medical personnel via radio-telephone.
GOE: 10.03.02 STRENGTH: V GED: R4 M3 L4 SVP: 6 DLU: 89

079.367-018 MEDICAL-SERVICE TECHNICIAN (military ser.)

Administers medical aid to personnel aboard submarines, small ships, and isolated areas in absence of or under supervision of medical superior: Examines patients and diagnoses condition. Prescribes medication to treat condition of patient. Inoculates and vaccinates patients to immunize patients from commu-

minor diseases. Treats cuts and burns, performs minor surgery and administers emergency medical care to patients during emergency situations in absence of superior. Inspects food and facilities to determine conformance to sanitary regulations. Recommends necessary measures to ensure sanitary conditions are maintained. Records, transcribes, and files medical case histories. Prepares requisitions for supplies, services, and equipment.
GOE: [illegible] STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

079.371-014 ORTHOPTIST (medical ser.)
Aids persons with correctable focusing defects to develop and use binocular vision (focusing of both eyes): Measures visual acuity, focusing ability, and eye-motor movement of eyes, separately and jointly. Aids patient to move, focus, and coordinate both eyes to aid in visual development. Develops visual skills, near-visual discrimination, and depth perception, using developmental glasses and prisms. Instructs adult patients or parents of young patients in utilization of corrective methods at home.
GOE: 10.02.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

079.374-010 EMERGENCY MEDICAL TECHNICIAN (medical ser.)
Administers first-aid treatment to and transports sick or injured persons to medical facility, working as member of emergency medical team: Responds to instructions from emergency medical dispatcher and drives specially equipped emergency vehicle to specified location. Monitors communication equipment to maintain contact with dispatcher. Removes or assists in removal of victims from scene of accident or catastrophe. Determines nature and extent of illness or injury, or magnitude of catastrophe, to establish first aid procedures to be followed or need for additional assistance, basing decisions on statements of persons involved, examination of victim or victims, and knowledge of emergency medical practice. Administers prescribed first-aid treatment at site of emergency, or in specially equipped vehicle, performing such activities as application of splints, administration of oxygen or intravenous injections, treatment of minor wounds or abrasions, or administration of artificial resuscitation. Communicates with professional medical personnel at emergency treatment facility to obtain instructions regarding further treatment and to arrange for reception of victims at treatment facility. Assists in removal of victims from vehicle and transfer of victims to treatment center. Assists treatment center admitting personnel to obtain and record information related to victims' vital statistics and circumstances of emergency. Maintains vehicles and medical and communication equipment and replenishes first-aid equipment and supplies. May assist in controlling crowds, protecting valuables, or performing other duties at scene of catastrophe. May assist professional medical personnel in emergency treatment administered at medical facility.
GOE: 10.03.02 STRENGTH: M GED: R4 M3 L4 SVP: 5 DLU: 77

079.374-014 NURSE, LICENSED PRACTICAL (medical ser.)
Provides prescribed medical treatment and personal care services to ill, injured, convalescent, and handicapped persons in such settings as hospitals, clinics, private homes, schools, sanitariums, and similar institutions: Takes and records patients' vital signs. Dresses wounds, gives enemas, douches, alcohol rubs, and massages. Applies compresses, ice bags, and hot water bottles. Observes patients and reports adverse reactions to medication or treatment to medical personnel in charge. Administers specified medication, orally or by subcutaneous or intramuscular injection, and notes time and amount on patients' charts. Assembles and uses such equipment as catheters, tracheotomy tubes, and oxygen suppliers. Collects samples, such as urine, blood, and sputum, from patients for testing and performs routine laboratory tests on samples. Sterilizes equipment and supplies, using germicides, sterilizer, or autoclave. Prepares or examines food trays for prescribed diet and feeds patients. Records food and fluid intake and output. Bathes, dresses, and assists patients in walking and turning. Cleans rooms, makes beds, and answers patients' calls. Washes and dresses bodies of deceased persons. Must pass state board examination and be licensed. May assist in delivery, care, and feeding of infants. May inventory and requisition supplies. May provide medical treatment and personal care to patients in private home setting, and be designated Home Health Nurse, Licensed Practical (medical ser.).
GOE: 10.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 87

079.374-018 PODIATRIC ASSISTANT (medical ser.)
Assists PODIATRIST (medical ser.) in patient care: Prepares patients for treatment, sterilizes instruments, performs general office duties, and assists PODIATRIST (medical ser.) in preparing dressings, administering treatments, and developing x rays.
GOE: 10.03.02 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

079.374-022 SURGICAL TECHNICIAN (medical ser.) alternate titles: operating-room technician
Performs any combination of following tasks before, during, and after surgery to assist surgical team: Places equipment and supplies in operating room and arranges instruments, according to instructions. Assists team members to place and position patient on table. Scrubs arms and hands and dons gown and gloves. Aids team to don gowns and gloves. Maintains supply of fluids, such as plasma, saline, blood, and glucose for use during operation. Hands instruments and supplies to surgeon, holds retractors, cuts sutures, and performs other tasks as directed by surgeon during operation. Puts dressings on patient following surgery. Counts sponges, needles, and instruments before and after operation. Washes and sterilizes equipment, using germicides and sterilizers. Cleans operating room.
GOE: 10.03.02 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 88

079.374-026 PSYCHIATRIC TECHNICIAN (medical ser.)
Provides nursing care to mentally ill, emotionally disturbed, or mentally retarded patients in psychiatric hospital or mental health clinic and participates in rehabilitation and treatment programs: Helps patients with their personal hygiene, such as bathing and keeping beds, clothing, and living areas clean. Administers oral medications and hypodermic injections, following physician's prescriptions and hospital procedures. Takes and records measures of patient's general physical condition, such as pulse, temperature, and respiration, to provide daily information. Observes patients to detect behavior patterns and reports observations to medical staff. Intervenes to restrain violent or potentially violent or suicidal patients by verbal or physical means as required. Leads prescribed individual or group therapy sessions as part of specific therapeutic procedures. May complete initial admittance forms for new patients. May contact patient's relatives by telephone to arrange family conferences. May issue medications from dispensary and maintain records in accordance with specified procedures. May be required to hold state license.
GOE: 10.02.02 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 86

09 OCCUPATIONS IN EDUCATION

This division includes occupations in education concerned with research, administration, and teaching. Includes occupations in the administration of federal, state, and private programs for which a background in education is required. Includes aides who assist classroom teachers by instructing sections of classes, coaching invidiual pupils, and grading papers, but excludes aides where educational preparation is not specific and tasks of jobs include various clerical or service tasks. Classroom aide occupations in primary and secondary school are included in Group 249. Occupations concerned with teaching art other than in primary and secondary schools are included in Group 149. Occupations concerned with teaching dramatics, dancing, music, athletics, games of mental skill, e.g., bridge and chess, and sports, other than in primary and secondary schools are included in appropriate groups under Division 15. Occupations concerned with student and teacher personnel work and vocational guidance are included in Groups 045 and 166. Administrative occupations which do not require a background of education are included in groups under Division 16.

090 OCCUPATIONS IN COLLEGE AND UNIVERSITY EDUCATION

This group includes occupations concerned with research, administration, and teaching in schools beyond the secondary school level (including junior colleges, technical institutes, and specialized post-secondary vocational schools such as secretarial, laboratory technology, and aviation training schools, as well as the graduate and undergraduate faculties and professional schools of colleges and universities). Teachers at this level usually specialize in one academic subject, professional discipline, or technical skill.

090.107-010 FOREIGN-STUDENT ADVISER (education) alternate titles: visiting-student counselor
Assists foreign students in making academic, personal-social, and environmental adjustment to campus and community life: Evaluates students' qualifications in light of admission requirements and makes recommendations relative to admission. Develops and maintains case histories, noting language, educational, social, religious, or physical problems affecting students' adjustments. Provides informal counseling and orientation regarding recreational and religious outlets, study habits, and personal adjustments. Interprets university regulations and requirements. Assists students in complying with government regulations concerning status, immigration, visas, passports, permission to work, and related matters. Represents students in cases involving conflict with regulations. Cooperates with other personnel service bureaus to assist in adjustment of students. Approves students' proposed budgets and requests release of funds from students' home governments to meet financial obligations. Recommends students for scholarships, grants-in-aid, and waivers of tuition fees on basis of scholarship, character, and financial need. Encourages and coordinates activities of groups which promote understanding of foreign cultures. May assist in curriculum planning.
GOE: 10.01.02 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

090.117-010 ACADEMIC DEAN (education) alternate titles: academic vice president; dean of instruction; faculty dean; provost; university dean; vice president for instruction
Develops academic policies and programs for college or university: Directs and coordinates activities of deans and chairpersons of individual colleges. Advises on personnel matters. Determines scheduling of courses and recommends implementation of additional courses. Coordinates activities of student advisors. Participates in activities of faculty committees, and in development of academic budget. Advises PRESIDENT, EDUCATIONAL INSTITUTION (education) on academic matters. Serves as liaison officer with accrediting agencies which evaluate academic programs. May serve as chief administrative officer in absence of PRESIDENT, EDUCATIONAL INSTITUTION (education). May provide general direction to LIBRARIAN (library), DIRECTOR OF ADMISSIONS (education), and REGISTRAR, COLLEGE OR UNIVERSITY (education).

GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 9 DLU: 77

090.117-014 ALUMNI SECRETARY (education) alternate titles: director, alumni relations

Directs and coordinates activities of college or university alumni organization: Communicates with alumni and former students. Organizes and directs alumni organizational functions, regional alumni meetings, and production of alumni publications. Coordinates activities of clerical and publications staff. Promotes alumni endorsement of institutional activities and enlists alumni aid in recruiting students and fund raising. Secures publicity for alumni functions. May promote athletic events. May assist in followup studies of graduates. May supervise alumni field officers.
GOE: 11.09.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

090.117-018 DEAN OF STUDENTS (education) alternate titles: dean of student affairs; director of student services; vice president of student affairs

Directs and coordinates student programs of college or university: Formulates and develops student personnel policies. Advises staff members on problems relating to policy, program, and administration. Directs and assists in planning social, recreational, and curricular programs. Counsels or advises individuals and groups on matters pertaining to personal problems, educational and vocational objectives, social and recreational activities, and financial assistance. Reviews reports of student misconduct cases that require disciplinary action to ensure recommendations conform to university policies. Sponsors and advises student organizations. Reviews budget and directs appropriations of student services unit. Represents university in community on matters pertaining to student personnel program and activities. May teach. May direct admission, foreign student services, health services, student union, and testing services. May be designated Dean Of Men (education); Dean Of Women (education).
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

090.117-022 DIRECTOR, ATHLETIC (education)

Plans, administers, and directs intercollegiate athletic activities in college or university: Interprets and participates in formulating extramural athletic policies. Employs and discharges coaching staff and other department employees on own initiative or at direction of board in charge of athletics. Directs preparation and dissemination of publicity to promote athletic events. Plans and coordinates activities of coaching staff. Prepares budget and authorizes department expenditures. Plans and schedules sports events, and oversees ticket sales activities. Certifies reports of income produced from ticket sales. May direct programs for students of physical education.
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 9 DLU: 77

090.117-026 DIRECTOR, EXTENSION WORK (education)

Directs college or university extension service to provide educational programs for adults in extended day, evening, and off-campus classes and in special interest seminar and convention courses: Consults staff members to determine community educational needs and to ascertain feasibility of proposed programs. Develops academic objectives for specific programs and for long range extension services. Consults with staff and outside experts and formulates program scope and content. Meets with academic and administrative personnel to disseminate information regarding program objectives and to ensure that program goals are met. Establishes operational policies and procedures. Reviews program progress reports to ensure that objectives are met. Reviews and approves budget. Oversees activities of operational and program departments. Directs activities of administrative staff.
GOE: 11.07.03 STRENGTH: S GED: R6 M3 L5 SVP: 9 DLU: 77

090.117-030 FINANCIAL-AIDS OFFICER (education) alternate titles: director of financial aid and placements; director of student aid

Directs scholarship, grant-in-aid, and loan programs to provide financial assistance to students in college or university: Selects candidates and determines types and amounts of aid. Organizes and oversees student financial counseling activities. Coordinates activities with other departmental staff engaged in issuing or collecting student payments. May teach. May select financial aid candidates as members of committee and be designated Chairperson, Scholarship And Loan Committee (education).
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

090.117-034 PRESIDENT, EDUCATIONAL INSTITUTION (education) alternate titles: chancellor

Formulates plans and programs for and directs administration of college, school, or university, within authority delegated by governing board: Confers with board of control to plan and initiate programs concerning organizational, operational, and academic functions of campus, and oversees their execution. Administers fiscal and physical planning activities, such as development of budget and building expansion programs, and recommends their adoption. Negotiates with administrative officials and representatives of business, community, and civic groups to promote educational, research, and public service objectives and policies of institution as formulated by board of control. Establishes operational procedures, rules, and standards relating to faculty and staff classification standards, financial disbursements, and accounting requirements. Represents campus on board of control and at formal functions. May be designated according to type of institution presided over as President, Business School (education); President, College Or University (education).
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 9 DLU: 77

090.164-010 LABORATORY MANAGER (education)

Coordinates activities of university science laboratory to assist faculty in teaching and research programs: Consults with faculty laboratory coordinator to determine equipment purchase priorities based on budget allowances, condition of existing equipment, and scheduled laboratory activities. Prepares and puts in place equipment scheduled for use during laboratory teaching sessions. Demonstrates care and use of equipment to teaching assistants. Builds prototype equipment, applying electromechanical knowledge and using handtools and power tools. Trains teaching staff and students in application and use of new equipment. Diagnoses equipment malfunctions and dismantles and repairs equipment, applying knowledge of shop mechanics and using gauges, meters, handtools, and power tools. Develops methods of laboratory experimentation, applying knowledge of scientific theory and computer capability. Confers with teaching staff periodically to evaluate new equipment and methods. Teaches laboratory sessions in absence of teaching assistant.
GOE: 11.07.03 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 86

090.167-010 DEPARTMENT HEAD, COLLEGE OR UNIVERSITY (education) alternate titles: department chairperson, college or university

Administers affairs of college department, such as English, biological sciences, or mathematics department: Arranges schedules of classes and assigns teaching staff to conduct classes. Prepares lists of budgetary and other needs. Interviews applicants for teaching positions. Performs other administrative duties in addition to teaching assignment. May administer department's budget and recruit academic personnel. May head department in two-year college and be designated Department Head, Junior College (education).
GOE: 11.07.03 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

090.167-014 DIRECTOR OF ADMISSIONS (education) alternate titles: dean of admissions

Directs and coordinates admissions program of public or private college or university, according to policies developed by governing board: Directs program of admissions counseling and reviews exceptional admissions cases. Confers with staff of other schools to explain admission requirements and student transfer credit policies. Evaluates courses offered by other schools to determine their equivalency to courses offered on campus. Directs preparation of printed materials explaining admission requirements and transfer credit policies for dissemination to other schools. May counsel students having problems relating to admissions or may supervise professionally trained admissions counseling staff. May serve on policy making admissions committee. May participate in or conduct student recruitment programs with other members of faculty and staff. May administer financial aid programs.
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

090.167-018 DIRECTOR OF INSTITUTIONAL RESEARCH (education) alternate titles: administrative analyst; director of institutional studies; vice president for institutional research

Directs and coordinates activities concerned with research and evaluation of operations and programs of college or university: Identifies problem areas, such as admission patterns, fiscal and management analysis, and sources of financial support in order to develop research procedures. Coordinates research efforts and assists in evaluating research findings. Coordinates activities of research staff. May teach.
GOE: 11.07.03 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

090.167-022 DIRECTOR OF STUDENT AFFAIRS (education) alternate titles: director, student union; manager, student union; student-activities adviser; student-union consultant

Plans and arranges social, cultural, and recreational activities of various student groups, according to university policies and regulations: Meets with student and faculty groups to plan activities. Evaluates programs and suggests modifications. Schedules events to prevent overlapping and coordinates activities with sports and other university programs. Contacts caterers, entertainers, decorators, and others to arrange for scheduled events. Conducts orientation program for new students with other members of faculty and staff. Advises student groups on financial status of and methods for improving their organizations. Promotes student participation in social, cultural, and recreational activities. May coordinate preparation and publishing of student affairs calendar. May provide individual or group counseling on selection of social activities and use of leisure time. May be designated according to activity performed as Fraternity Adviser (education); Women's Activities Adviser (education).
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

090.167-026 DIRECTOR, SUMMER SESSIONS (education)

Coordinates and directs summer session program of college or university: Analyzes past records and confers with faculty and staff on enrollment trends to anticipate size of enrollment. Estimates budget requirements on basis of expected income and expenditures and requests allotment of funds. Discusses apportionment of funds with heads of departments and approves or alters detailed budgets according to past financial success of proposed course offerings. Issues invitations to and appoints teaching staff upon recommendations of department heads. Directs preparation and distribution of summer session bulletin and publicity releases. Oversees registration of summer session students. May establish tuition fees as member of committee on basis of expected enrollment to provide income equal to expenses.
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 9 DLU: 77

090.167-030 REGISTRAR, COLLEGE OR UNIVERSITY (education) alternate titles: director of admissions

Directs and coordinates college or university registration activities: Consults with other officials to devise registration schedules and procedures. Analyzes statistical data on registration for administrative use in formulating policies. Exchanges student information with other colleges or universities. Directs preparation of student transcripts. Prepares commencement list. Directs preparation of statistical reports on educational activities for government and educational agencies and interprets registration policies to faculty and students. Directs activities of workers engaged in transcribing and evaluating academic records of students applying for permission to enter college or university. Directs compilation of information, such as class schedules and graduation requirements, for publication in school bulletins and catalogs. Coordinates dissemination of information on courses offered and procedures students are required to follow in order to obtain grade transcripts. Issues official transcripts. Coordinates class schedules with room assignments for optimum use of buildings and equipment. May assign rooms for student activities.

GOE: 11.07.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

090.167-034 DIRECTOR, FIELD SERVICES (education) alternate titles: director of recruitment

Directs and plans recruitment activities of community college: Plans comprehensive program of marketing services in recruitment of students and outreach activities with business, industry, community organizations, and public agencies to establish educational programs and to identify educational needs of community. Develops and distributes recruiting literature in locations, such as high schools and shopping centers. Plans publicity campaign and contacts target groups directly through visits with school counselors, career day activities, and meetings with industry groups to explain college educational programs and services. Studies federal and state regulations and local demographic and employment trends to determine impact on enrollment. Coordinates recruitment activities with other colleges. Advises administrative staff on need for new programs and courses. Prepares budget and annual reports.

GOE: 11.07.03 STRENGTH: M GED: R5 M4 L5 SVP: 8 DLU: 86

090.222-010 INSTRUCTOR, BUSINESS EDUCATION (education)

Instructs students in commercial subjects, such as typing, filing, secretarial procedures, business mathematics, office equipment use, and personality development, in business schools, community colleges, or training programs: Instructs students in subject matter, utilizing various methods, such as lecture and demonstration, and uses audiovisual aids and other materials to supplement presentations. Prepares or follows teaching outline for course of study, assigns lessons, and corrects homework and classroom papers. Administers tests to evaluate students' progress, records results, and issues reports to inform students of their progress. Maintains discipline in classroom.

GOE: 11.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

090.227-010 FACULTY MEMBER, COLLEGE OR UNIVERSITY (education)

Conducts college or university courses for undergraduate or graduate students: Teaches one or more subjects, such as economics, chemistry, law, or medicine, within prescribed curriculum. Prepares and delivers lectures to students. Compiles bibliographies of specialized materials for outside reading assignments. Stimulates class discussions. Compiles, administers, and grades examinations, or assigns this work to others. Directs research of other teachers or graduate students working for advanced academic degrees. Conducts research in particular field of knowledge and publishes findings in professional journals. Performs related duties, such as advising students on academic and vocational curricula, and acting as adviser to student organizations. Serves on faculty committee providing professional consulting services to government and industry. May be designated according to faculty rank in traditional hierarchy as determined by institution's estimate of scholarly maturity as Associate Professor (education); Professor (education); or according to rank distinguished by duties assigned or amount of time devoted to academic work as Research Assistant (education); Visiting Professor (education). May teach in two-year college and be designated Teacher, Junior College (education); or in technical institute and be designated Faculty Member, Technical Institute (education). May be designated: Acting Professor (education); Assistant Professor (education); Clinical Instructor (education); Instructor (education); Lecturer (education); Teaching Assistant (education).

GOE: 11.02.01 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 81

090.227-014 GRADUATE ASSISTANT (education)

Assists department chairperson, faculty members or other professional staff members in college or university, by performing any combination of following duties: Assists in library, develops teaching materials, such as syllabi and visual aids, assists in laboratory or field research, prepares and gives examinations, assists in student conferences, grades examinations and papers, and teaches lower-level courses. May be designated by duties performed, or equipment operated.

GOE: 11.02.01 STRENGTH: L GED: R6 M4 L6 SVP: 8 DLU: 77

090.227-018 INSTRUCTOR, EXTENSION WORK (education)

Conducts evening classes for extension service of college or university: Prepares course of study designed to meet community, organization, and student needs. Conducts and corrects examinations, and assigns course grades.

GOE: 11.02.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

091 OCCUPATIONS IN SECONDARY SCHOOL EDUCATION

This group includes occupations concerned with research, administration, an
teaching at the secondary school level (intermediate grades between primar
school and college). Teaching at this level is generally specialized accordin
to one group of related subjects, such as physics, math, history, literature, hom
economics, industrial arts, or music. Occupations concerned with relievin
teachers of duties which do not require academic training, such as clerical task
or attending to personal needs of students, are included in Group 249.

091.107-010 ASSISTANT PRINCIPAL (education)

Administers school student personnel program in primary or secondar
school, and counsels and disciplines students, performing any combination o
following tasks: Formulates student personnel policies, such as code of ethic
Plans and supervises school student activity programs. Gives individual an
group guidance for personal problems, educational and vocational objective
and social and recreational activities. Talks with and disciplines students i
cases of attendance and behavior problems. Supervises students in attendanc
at assemblies and athletic events. Walks about school building and property t
monitor safety and security or directs and coordinates teacher supervision o
areas such as halls and cafeteria. Observes and evaluates teacher performanc
Maintains records of student attendance. Arranges for and oversees substitu
teachers. Works with administrators to coordinate and supervise student teach
ers program. Teaches courses. Assists PRINCIPAL (education) 099.117-018 t
interview and hire teachers. Organizes and administers in-service teacher trai
ing. Acts as PRINCIPAL (education) in absence of PRINCIPAL (education
May be required to have certification from state.

GOE: 10.01.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 80

**091.221-010 TEACHER, INDUSTRIAL ARTS (education) alternate title
shop teacher**

Teaches students basic techniques and assists in development of manipulativ
skills in industrial arts courses in secondary schools. Prepares lesson plans f
courses and establishes goals. Lectures, illustrates, and demonstrates whe
teaching use of handtools; machines, such as lathe, planer, power saws, an
drill press; safety practices; precision measuring instruments, such as microm
eter; and industrial arts techniques. Evaluates student progress. Talks with pa
ents and counselor to resolve behavioral and academic problems. May teac
shop math. May specialize in one or more areas, such as woodworking, meta
working, electricity, graphic arts, automobile repair, or drafting. May teach st
dents with disabilities. May be required to have certification from state.

GOE: 11.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

**091.227-010 TEACHER, SECONDARY SCHOOL (education) alternat
titles: high school teacher**

Teaches one or more subjects to students in public or private secondar
schools: Instructs students, using various teaching methods, such as lecture an
demonstration, and uses audiovisual aids and other materials to supplemen
presentations. Prepares course objectives and outline for course of study fo
lowing curriculum guidelines or requirements of state and school. Assigns le
sons and corrects homework. Administers tests to evaluate pupil progres
records results, and issues reports to inform parents of progress. Keeps atten
ance records. Maintains discipline in classroom. Meets with parents to discu
student progress and problems. Participates in faculty and professional mee
ings, educational conferences, and teacher training workshops. Performs relate
duties, such as sponsoring one or more activities or student organizations, a
sisting pupils in selecting course of study, and counseling student in adjustme
and academic problems. May be identified according to subject matter taugh
May be required to hold certification from state.

GOE: 11.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

092 OCCUPATIONS IN PRESCHOOL, PRIMARY SCHOOL, AND KINDERGARTEN EDUCATION

This group includes occupations concerned with research, administration, an
teaching below the secondary school level. Teaching at this level is generall
not specialized according to subject matter. Some specialization does occur
music, art, science, or physical training. Occupations concerned with relievin
teachers of duties which do not require academic training, such as clerical task
or attending to personal needs of children, are included in Group 249.

092.167-010 DIRECTOR, DAY CARE CENTER (education)

Directs activities of preschool, day care center, or other child developme
facility to provide instruction and care for children. Prepares and submits fac
ity budget to board of trustees, administrative agency, or owner for approva
Authorizes purchase of instructional materials and teaching aids, such as book
toys, and games designed to stimulate learning. Interviews and recommends hi
ing of teaching and service staff. Confers with parents regarding facility activ
ties, policies, and enrollment procedures. Confers with teaching staff regardin
child's behavioral or learning problems, and recommends methods of modifyin
inappropriate behavior and encouraging learning experiences. Reviews and eva
uates facility activities to ensure conformance to state and local regulations. R

views and approves menu plans and food purchases. May arrange medical attention for ill or injured child in accordance with parental instructions. May perform classroom teaching duties during absence of regular teacher. May be designated Director, Child Development Center (education); Director, Nursery School (education).
GOE: 11.07.03 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

092.227-010 TEACHER, ELEMENTARY SCHOOL (education)
Teaches elementary school students academic, social, and motor skills in public or private schools: Prepares course objectives and outline for course of study following curriculum guidelines or requirements of state and school. Lectures, demonstrates, and uses audiovisual teaching aids to present subject matter to class. Prepares, administers, and corrects tests, and records results. Assigns lessons, corrects papers, and hears oral presentations. Teaches rules of conduct. Maintains order in classroom and on playground. Counsels pupils when adjustment and academic problems arise. Discusses pupils' academic and behavioral attitudes and achievements with parents. Keeps attendance and grade records as required by school. May coordinate class field trips. May teach combined grade classes. May specialize by subject taught, such as math, science, or social studies. May be required to hold state certification.
GOE: 11.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 81

092.227-014 TEACHER, KINDERGARTEN (education) alternate titles: instructor, kindergarten
Teaches elemental natural and social science, personal hygiene, music, art, and literature to children from 4 to 6 years old, to promote their physical, mental, and social development: Supervises activities, such as field visits, group discussions, and dramatic play acting, to stimulate students' interest in and broaden understanding of their physical and social environment. Fosters cooperative social behavior through games and group projects to assist children in forming satisfying relationships with other children and adults. Encourages students in singing, dancing, rhythmic activities, and in use of art materials, to promote self-expression and appreciation of esthetic experience. Instructs children in practices of personal cleanliness and self care. Alternates periods of strenuous activity with periods of rest or light activity to avoid overstimulation and fatigue. Observes children to detect signs of ill health or emotional disturbance, and to evaluate progress. Discusses students' problems and progress with parents.
GOE: 10.02.03 STRENGTH: L GED: R5 M2 L4 SVP: 7 DLU: 77

092.227-018 TEACHER, PRESCHOOL (education)
Instructs children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility: Plans individual and group activities to stimulate growth in language, social, and motor skills, such as learning to listen to instructions, playing with others, and using play equipment. May be required to have certification from state. May be designated Teacher, Child Development Center (education); Teacher, Day Care Center (education); Teacher, Early Childhood Development (education); Teacher, Nursery School (education).
GOE: 10.02.03 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 81

094 OCCUPATIONS IN EDUCATION OF PERSONS WITH DISABILITIES

This group includes occupations concerned with research in the education and training of persons with disabilities; the administration of schools or programs for persons with disabilities; and teaching in such schools and programs which require specialized techniques and procedures. Includes teaching persons with visual impairments to read books imprinted in braille and to develop their sense of touch; instructing persons who are hearing impaired in sign language and lip reading; and instructing persons with mental, neurological, and emotional disabilities.

094.107-010 WORK-STUDY COORDINATOR, SPECIAL EDUCATION (education)
Plans and conducts special education work and study program for in-school youth: Establishes contacts with employers and employment agencies and surveys newspapers and other sources to locate work opportunities for students. Confers with potential employers to communicate objectives of work study program and to solicit cooperation in adapting work situations to special needs of students. Evaluates and selects program participants according to specified criteria and counsels and instructs selected students in matters such as vocational choices, job readiness, and job retention skills and behaviors. Assists students in applying for jobs and accompanies students to employment interviews. Confers with employer and visits work site to monitor progress of student and to determine support needed to meet employer requirements and fulfill program goals. Counsels students to foster development of satisfactory job performance. Confers with school and community personnel to impart information about program and to coordinate program functions with related activities.
GOE: 10.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 86

094.117-010 DIRECTOR, COMMISSION FOR THE BLIND (government ser.)
Directs activities of State Commission for the Blind to facilitate vocational and social adjustment of visually handicapped individuals: Directs, through subordinates, activities of workers engaged in training visually handicapped in vocational and other skills. Plans and organizes training programs and self-employment opportunities for blind persons. Confers with representatives of civic groups and charitable organizations to coordinate programs and services. Recommends changes in legislation affecting visually handicapped individuals. Represents Commission at conventions and addresses public gatherings to promote understanding of problems of blind and partially sighted and activities of Commission. Authorizes purchase of materials and equipment within allocated budget.
GOE: 11.07.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

094.117-018 VOCATIONAL REHABILITATION CONSULTANT (government ser.)
Develops and coordinates implementation of vocational rehabilitation programs: Consults with members of local communities and personnel of rehabilitation facilities, such as sheltered workshops and skills training centers, to identify need for new programs or modification of existing programs. Collects and analyzes data to define problems and develops proposals for programs to provide needed services, utilizing knowledge of vocational rehabilitation theory and practice, program funding sources, and government regulations. Provides staff training, negotiates contracts for equipment and supplies, and performs related functions to implement program changes. Monitors program operations and recommends additional measures to ensure programs meet defined needs.
GOE: 11.07.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 86

094.167-010 SUPERVISOR, SPECIAL EDUCATION (education)
Directs and coordinates activities of teachers and other staff providing home or school instruction, evaluation services, job placement, or other special education services to physically, mentally, emotionally, or neurologically handicapped children: Reviews referrals and diagnoses and participates in conferences with administrators, staff, parents, children, and other concerned parties to formulate recommendations for student placement and provision of services. Monitors staff activities and gives technical assistance in areas such as assessment, curriculum development, use of materials and equipment, and management of student behavior. Plans and conducts in-service training. Interviews applicants, recommends hirings, and evaluates staff performance. May write grant proposals. May assist program administrators in preparation of budget and development of program policy and goals. May address public to elicit support and explain program objectives.
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

094.167-014 DIRECTOR, SPECIAL EDUCATION (education) alternate titles: administrative assistant, special education; assistant superintendent, special education
Directs and coordinates special education programs in public school systems, public agencies, and state institutions to teach students with mental or physical disabilities: Formulates policies and procedures for new or revised programs of activities, such as screening, placement, education, and training of students. Evaluates special education programs to ensure that objectives for student education are met. Interprets laws, rules, and regulations to students, parents, and staff. Recruits, selects, and evaluates staff. Prepares budget and solicits funds to provide financial support for programs. Prepares reports for federal, state, and local regulatory agencies. May contract with agencies for needed services, such as residential care. May administer achievement tests to measure student level of performance.
GOE: 11.07.03 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 91

094.224-010 TEACHER, HEARING IMPAIRED (education)
Teaches elementary and secondary school subjects to hearing impaired students, using various methods of communication to receive and convey language: Plans curriculum and prepares lessons and other instructional materials according to grade level of students, utilizing visual media such as computer, films, television, and charts. Confers with committee of parents, administrators, testing specialists, social worker, and others to develop individual educational program. Instructs students in academic subjects. Instructs students in various forms of communication, such as gestures, sign language, finger spelling, and speech cues. Encourages students to participate in verbal communication classroom learning experiences to ensure their comprehension of subject matter, development of social skills, and ability to communicate in situations encountered in daily living. Tests students' hearing aids to ensure hearing aids are functioning. May attend and interpret lectures and instructions for students enrolled in regular classes. May teach parents how to participate in and enhance students' learning experiences. May teach students to use computer. May specialize in teaching lip reading and be designated Teacher, Lip Reading (education). May be required to have certification from state.
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

094.224-014 TEACHER, PHYSICALLY IMPAIRED (education)
Teaches elementary and secondary school subjects to physically impaired students, adapting teaching techniques and methods of instruction to meet individual needs of students in schools, hospitals, and students' homes: Plans curriculum and prepares lessons and other materials, considering factors, such as individual needs, abilities, learning levels, and physical limitations of students. Confers with parents, administrators, testing specialists, social worker, and others to develop educational program for student. Instructs students with observable orthopedic impairments, as well as those with internal impairment, such as heart condition. Arranges and adjusts tools, work aids, and equipment utilized by students in classroom, such as specially equipped worktables, computers, typewriters, and mechanized page turners. Devises special teaching tools,

techniques, and equipment. Instructs students in academic subjects and other activities designed to provide learning experience. Confers with other members of staff to develop programs to maximize students' potentials. May assist members of medical staff in rehabilitation programs for students. May be required to have certification from state.
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

094.224-018 TEACHER, VISUALLY IMPAIRED (education)
Teaches elementary and secondary school subjects and daily living skills to visually impaired students: Instructs students in reading and writing, using magnification equipment and large print material or braille system. Confers with parents, administrator, testing specialists, social worker, and others to develop individual educational program for students. Plans curriculum and prepares lessons and other instructional materials, according to grade level of students. Transcribes lessons and other materials into braille for blind students or large print for low vision students. Reviews and corrects completed assignments, using such aids as braille writer, slate and styles, or computer. Arranges for and conducts field trips designed to promote experiential learning. Instructs students in academic subject areas and daily living skills, such as hygiene, safety, and food preparation. Encourages students to participate in verbal and sensory classroom learning experiences to ensure their comprehension of subject matter, development of social skills, and ability to identify objects encountered in daily living. Meets with parents to discuss how parents can encourage student's independence and well-being and to provide guidance in using community resources. May counsel students. May teach braille to individuals with sight and be designated Instructor, Braille (education).
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 81

094.227-010 TEACHER, EMOTIONALLY IMPAIRED (education)
Teaches elementary and secondary school subjects to students with emotional impairments in schools, institutions, or other specialized facilities: Plans curriculum and prepares lessons and other instructional materials to meet individual needs of students, considering such factors as physical, emotional, and educational levels of development. Confers with parents, administrators, testing specialists, social workers, and others to develop individual educational plan for student. Instructs students in academic subjects and social interaction skills. Observes students for signs of disruptive behavior, such as violence, verbal outbursts, and episodes of destructiveness. Teaches socially acceptable behavior employing techniques such as behavior modification and positive reinforcement. Confers with other staff members to plan programs designed to promote educational, physical, and social development of students. May be required to have certification from local, state, and federal government.
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

094.227-022 TEACHER, MENTALLY IMPAIRED (education)
Teaches basic academic and living skills to mentally impaired students in schools and other institutions: Plans curriculum and prepares lessons and other instructional materials according to achievement levels of students. Confers with parents, administrators, testing specialists, social workers, and others to develop individual educational program for students who are at different learning ability levels, including educable, trainable, and severely impaired. Instructs students in academic subjects, utilizing various teaching techniques, such as phonetics, multisensory learning, and repetition to reinforce learning. Instructs students in daily living skills required for independent maintenance and economic self-sufficiency, such as hygiene, safety, and food preparation. Observes, evaluates, and prepares reports on progress of students. Meets with parents to provide support and guidance in using community resources. May administer and interpret results of ability and achievement tests. May be required to hold state certification.
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

094.227-026 TEACHER, VOCATIONAL TRAINING (education)
Teaches vocational skills to handicapped students: Confers with students, parents, school personnel, and other individuals to plan vocational training that meets needs, interests, and abilities of students. Instructs students in areas such as personal-social skills and work-related attitudes and behaviors. Develops work opportunities that allow students to experience success in performing tasks of increasing difficulty and that teach work values, such as self-improvement, independence, dependability, productivity, and pride of workmanship. Conducts field trips to enable students to learn about job activities and to explore work environments. May teach academic skills to students. May instruct students in one or more vocational skills, such as woodworking, building maintenance, cosmetology, food preparation, gardening, sewing, or nurse aiding.
GOE: 10.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 86

094.227-030 TEACHER, LEARNING DISABLED (education)
Teaches elementary and secondary school subjects in schools, institutions, or other specialized facilities to students with neurological problems in learning: Plans curriculum and prepares lessons and other instructional materials to meet individual need of students, considering state and school requirements, physical, emotional, and educational levels of development. Confers with parents, administrators, testing specialists, social worker, and others to develop individual educational program for student. Instructs students in all academic subjects. Creates learning materials geared to each student's ability and interest. Instructs students, using special educational strategies and techniques, to improve sensory-motor and perceptual-motor development, perception, memory, language, cognition, and social and emotional development. Works with students to increase motivation, provide consistent reinforcement to learning, continuous assessment of level of functioning, and continuous feedback to student for all learning activities. Works with parents to accept and develop skills in dealing with student's learning impairment. May work as consultant, teach in self-contained classroom, or teach in resource room. May be required to hold certification from state.
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 81

094.267-010 EVALUATOR (education)
Assesses type and degree of disability of handicapped children to aid in determining special programs and services required to meet educational needs. Reviews referrals of children having or suspected of having learning disabilities, mental retardation, behaviorial disorders, or physical handicaps to determine evaluation procedure. Confers with school or other personnel and scrutinizes records to obtain additional information on nature and severity of disability. Observes student behavior and rates strength and weakness of factors such as rapport, motivation, cooperativeness, aggression, attention span, and task completion. Selects, administers, and scores variety of preliminary tests to measure individual's aptitudes, educational achievements, perceptual motor skills, vision, and hearing. Reports findings for staff consideration in placement of children in educational programs. May test preschool children to detect learning handicaps and recommend followup activities, consultation, or services. May administer work related tests and review records and other data to assess student vocational interests and abilities. May specialize in evaluating student readiness to transfer from special classes to regular classroom, and in providing supportive services to regular classroom teacher and be designated Mainstreaming Facilitator (education).
GOE: 10.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

096 HOME ECONOMISTS AND FARM ADVISERS

This group includes occupations concerned with informing and advising homemakers, farmers, and farm youth in the arts and techniques of homemaking or farming, usually in the home or on the farm, in consultation, or in locally organized groups and meetings.

096.121-010 COUNTY HOME-DEMONSTRATION AGENT (government ser.) alternate titles: home agent; home-demonstration agent; home-extension agent
Develops, organizes, and conducts programs for individuals in rural communities to improve farm and family life: Lectures and demonstrates techniques in such subjects as nutrition, clothing, home management, home furnishing, and child care. Visits homes to advise families on problems, such as family budgeting and home remodeling. Organizes and advises clubs, and assists in selecting and training leaders to guide group discussions and demonstrations in subjects, such as sewing, food preparation, and home decoration. Writes leaflets and articles and talks over radio and television to disseminate information. Participates in community activities, such as judging at rural fairs and speaking before parent-teachers associations. May direct 4-H Club activities [FOUR-H CLUB AGENT (education)].
GOE: 11.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

096.121-014 HOME ECONOMIST (profess. & kin.) alternate titles: consumer services consultant
Organizes and conducts consumer education service or research program for equipment, food, textile, or utility company, utilizing principles of home economics: Advises homemakers in selection and utilization of household equipment, food, and clothing, and interprets homemakers' needs to manufacturers of household products. Writes advertising copy and articles of interest to homemakers, tests recipes, equipment, and new household products, conducts radio and television homemakers' programs, and performs other public relations and promotion work for business firms, newspapers, magazines, and radio and television stations. Advises individuals and families on home management practices, such as budget planning, meal preparation, and energy conservation. Teaches improved homemaking practices to homemakers and youths through educational programs, demonstrations, discussions, and home visits. May engage in research in government, private industry, and colleges and universities to explore family relations or child development, develop new products for home, discover facts on food nutrition, and test serviceability of new materials. May specialize in specific area of home economics and be designated Equipment Specialist (profess. & kin.); Fashion Consultant (profess. & kin.); Home Economist, Consumer Service (profess. & kin.); Nutritionist (profess. & kin.); Product Representative (profess. & kin.); Research-Home Economist (profess. & kin.); Test-Kitchen-Home Economist (profess. & kin.).
GOE: 11.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

096.127-010 COUNTY-AGRICULTURAL AGENT (government ser.) alternate titles: agricultural agent; county adviser; county agent; extension agent; extension-service agent; extension worker; farm adviser; farm agent
Organizes and conducts cooperative extension program to advise and instruct farmers and individuals engaged in agri-business in applications of agricultural research findings: Collects, analyzes, and evaluates agricultural data; plans and develops techniques; and advises farmers to assist in solving problems, such as crop rotation and soil erosion. Delivers lectures and prepares articles concerning subjects, such as farm management and soil conservation. Demonstrates prac-

al procedures used in solving agricultural problems. Discusses extension pro- am with representatives of commercial organizations, county government, and her groups to inform them of program services and to obtain their cooperation encouraging use of services. Prepares activity, planning, and other reports d maintains program records. Prepares budget requests, or assists in their eparation. May supervise and coordinate activities of other county extension orkers. May direct 4-H Club activities. May be designated by specific pro- am assignment as Agri-Business Agent (government ser.); Farm-Management gent (government ser.); Horticultural Agent (government ser.); Livestock gent (government ser.); Resource Agent (government ser.).
OE: 11.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

96.127-014 EXTENSION SERVICE SPECIALIST (government ser.) alternate titles: cooperative extension advisor specialist

Instructs extension workers and develops specialized service activities in area agriculture or home economics. Plans, develops, organizes, and evaluates aining programs in subjects, such as home management, horticulture, and onsumer information. Prepares leaflets, pamphlets, and other material for use training aids. Conducts classes to train extension workers in specialized elds and in teaching techniques. Delivers lectures to commercial and commu- ity organizations and over radio and television to promote development of ag- cultural or domestic skills. Analyzes research data and plans activities to co- rdinate services with those offered by other departments, agencies, and organi- ations. May be designated according to field of specialization as Agricultural xtension Specialist (government ser.); Home Economics Specialist (govern- ent ser.).
GOE: 11.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

96.127-018 FEED AND FARM MANAGEMENT ADVISER (agriculture; retail trade)

Instructs farmers and retail grain and feed-store customers in modern and sci- ntific feed and farm management techniques. Discusses feeding problems for owl, swine, cattle, and other livestock with farmers. Examines poultry or live- tock and recommends medication and remedial measures to prevent spread of isease and to maintain healthy poultry or livestock. Advises and assists farm- rs in securing services of VETERINARIAN (medical ser.) for treating larger nimals. Assists farmers in setting up cost and production records to determine most economical method of farm operation. May give lectures and dem- nstrations to farm groups. May take feed orders.
GOE: 11.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

96.127-022 FOUR-H CLUB AGENT (education)

Organizes and directs educational projects and activities of 4-H Club. Re- ruits and trains volunteer leaders to plan and guide 4-H Club program to meet eeds and interests of individuals and community. Directs selection of edu- ational projects, such as sewing, woodworking, photography, and livestock aising. Procures, develops, distributes, and presents teaching materials, such as isual aids and literature for educational projects. Arranges for 4-H Clubs to xhibit or participate in events, such as county and state fairs and state 4-H Club events. Develops and maintains recognition and incentive program for members and leaders of 4-H Clubs. May specialize in directing 4-H Club ac- ivities for girls and be designated Youth Agent (education).
GOE: 11.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

096.161-010 HOME-SERVICE DIRECTOR (profess. & kin.) alternate titles: director of home economics

Plans, coordinates, and directs consumer education service or research pro- gram for equipment, food, or utility company to promote goodwill and sale of products or services. Studies and interprets data concerning consumer habits and preferences obtained from surveys, letters, and other customer contacts to aid company in product development. Plans and organizes program to educate consumers in use of equipment, product, or service. Develops and plans methods of instruction and techniques of demonstrating principles of home economics, such as food preparation and equipment use, to community and school groups. Directs and coordinates testing of recipes and development of new uses for equipment or product. Instructs dealers, sales personnel, and other employees in home management practices and in operation and care of equipment. Contacts organizations, such as school, professional, and women's groups, to promote company product and services. Writes articles and plans preparation of instruction manuals, booklets on product uses, and other consumer publications. Advises on content and accuracy of sales promotional material, such as newspaper, radio, and television advertising copy.
GOE: 11.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

096.167-010 DISTRICT EXTENSION SERVICE AGENT (government ser.) alternate titles: extension supervisor; regional extension-service specialist

Directs and coordinates activities of workers engaged in agricultural or home economics services of agricultural extension program within group of counties. Determines methods and procedures of services and assigns tasks to workers according to extension program policies. Examines county methods and procedures to evaluate content and effectiveness of services within district. Delivers lectures to groups, such as commercial and community organizations, and directs county extension workers to deliver lectures to publicize and promote extension services activities. Reviews personnel data and recommends personnel action, such as hiring and discharging workers and adjusting salaries. Prepares, or assists in preparing, activity and planning reports and directs county extension workers to prepare reports. May formulate or assist in formulating budget requests to obtain operating funds. May be designated according to field of specialization as District Agricultural Agent (government ser.); District Home Economics Agent (government ser.).
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

096.167-014 SPECIALIST-IN-CHARGE, EXTENSION SERVICE (government ser.)

Directs and coordinates activities of extension service specialists and develops educational programs in agriculture and home economics. Plans procedures and analyzes data for use by extension service specialists. Meets with specialists, volunteers, and other staff to discuss program problems and to disseminate information pertaining to practical applications of research findings in specific program areas. Coordinates activities of specialists to ensure program goals are met. Recruits and hires workers for specialized extension program services, and plans, organizes, and conducts training programs for new employees. Prepares activity, planning, and other reports, and maintains service records. Prepares or assists in preparation of budget requests.
GOE: 11.02.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

097 OCCUPATIONS IN VOCATIONAL EDUCATION

This group includes occupations concerned with research, administration, and teaching in vocational education.

097.167-010 DIRECTOR, VOCATIONAL TRAINING (education)

Directs and coordinates vocational training programs for public school system, according to board of education policies and state education code. Confers with members of industrial and business communities to determine human resource training needs for apprenticeable and nonapprenticeable occupations. Reviews and interprets federal and state vocational education codes to ensure that program conforms to legislation. Prepares budget and funding allocations for vocational programs. Reviews and approves new programs. Evaluates apprenticeable and nonapprenticeable programs, considering factors, such as selection, training, and placement of enrollees. Plans and develops joint programs in conjunction with other members of education staff. Organizes committees to provide technical and advisory assistance to programs. Coordinates on-the-job training programs with employers, and evaluates progress of enrollees in conjunction with program contract goals.
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

097.221-010 INSTRUCTOR, VOCATIONAL TRAINING (education) alternate titles: teacher, vocational training

Teaches vocational training subjects to students in public or private schools or in industrial plants. Organizes program of practical and technical instruction, including demonstrations of skills required in trade, and lectures on theory, techniques, and terminology. Instructs students in subject areas, such as mathematics, science, drawing, use and maintenance of tools and equipment, codes or regulations related to trade, and safety precautions. Plans and supervises work of students, individually or in small groups, in shop or laboratory. Tests and evaluates achievement of student in technical knowledge and trade skills. May be identified according to trade or theory taught or type of establishment in which training is conducted, such as plumbing, electronics, or dental assistance. May place students in job training. May teach students with disabilities. May be required to have certification from state.
GOE: 11.02.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 81

097.227-010 INSTRUCTOR, FLYING II (education)

Instructs student pilots in flight procedures and techniques and in ground school courses. Develops and prepares course outlines, study materials, and instructional procedures for students enrolled in basic, advanced, or instrument ground school. Lectures on various subjects, such as aircraft construction, federal aviation regulations, and radio navigation. Demonstrates operation of various aircraft components and instruments, and techniques for controlling aircraft during maneuvers, such as taxiing, takeoff, and landing, using synthetic instrument trainers. Observes student's actions during training flights to ensure assimilation of classroom instruction and to comply with federal aviation regulations. Tests and evaluates students' progress, using written and performance tests and oral interviews. May teach advanced, basic, or instrument courses and be designated Ground Instructor, Advanced (education); Ground Instructor, Basic (education); Ground Instructor, Instrument (education). Must be certified by Federal Aviation Administration.
GOE: 05.04.01 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

099 OCCUPATIONS IN EDUCATION, N.E.C.

This group includes occupations in education, not elsewhere classified, concerned with research, administration, and teaching.

099.117-010 DIRECTOR, EDUCATIONAL PROGRAM (education)

Plans, develops, and administers programs to provide educational opportunities for students. Cooperates with business, civic, and other organizations to develop curriculums to meet needs and interests of students and community. Interviews and selects staff members and provides in-service training for teachers. Prepares budget and determines allocation of funds for staff, supplies and equipment, and facilities. Analyzes data from questionaires, interviews, and group discussions to evaluate curriculums, teaching methods, and community

participation in educational and other programs. May direct preparation of publicity to promote activities, such as personnel recruitment, educational programs or other services. May specialize in elementary, secondary, adult, or junior college education.
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

099.117-014 EDUCATION SUPERVISOR, CORRECTIONAL INSTITUTION (education)

Plans and administers program of correlated academic, vocational, and social education in federal, state, or local correctional institution: Prepares courses of study and training materials designed to aid in rehabilitation process. Observes and advises instructors on improvements of methods and techniques. Institutes and directs vocational training programs for development of work habits, skills, and abilities. Conducts followup studies to evaluate effectiveness of academic and vocational training programs. Correlates educational programs with recreation program and other activities of institution and with parole program. Prepares budget requests for education programs, orders school supplies, and prepares records and reports. May supervise preparation of institutional publications. May be designated according to type of correctional facility as Education Supervisor, Penal Institution (education); Education Supervisor, Youth Authority (education).
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

099.117-018 PRINCIPAL (education)

Directs and coordinates educational, administrative, and counseling activities of primary or secondary school: Develops and evaluates educational program to ensure conformance to state and school board standards. Develops and coordinates educational programs through meetings with staff, review of teachers' activities, and issuance of directives. Confers with teachers, students, and parents concerning educational and behavioral problems in school. Establishes and maintains relationships with colleges, community organizations, and other schools to coordinate educational services. Requisitions and allocates supplies, equipment, and instructional material as needed. Directs preparation of class schedules, cumulative records, and attendance reports. Observes and evaluates teacher performance. Interviews and hires teachers. Walks about school building and property to monitor safety and security. Plans and monitors school budget. May plan and direct building maintenance. May develop and administer educational programs for students with mental or physical handicaps. May be required to have certification from state.
GOE: 11.07.03 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 81

099.117-022 SUPERINTENDENT, SCHOOLS (education)

Directs and coordinates activities concerned with administration of city, county, or other school system in accordance with board of education standards: Formulates plans and policies for educational program and submits them to school board for approval. Administers program for selection of school sites, construction of buildings, and provision of equipment and supplies. Directs preparation and presentation of school budget and determines amount of school bond issues required to finance educational program. Addresses community and civic groups to enlist their support. Interprets program and policies of school system to school personnel, to individuals and community groups, and to governmental agencies. Coordinates work of school system with related activities of other school districts and agencies. May ensure that laws applying to attendance of children at school are enforced. May supervise examining, appointing, training, and promotion of teaching personnel. May specialize in areas, such as personnel services, curriculum development, or business administration.
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 9 DLU: 77

099.117-026 SUPERVISOR, EDUCATION (education)

Develops program curriculum and directs teaching personnel of school system: Confers with teaching and administrative staff to plan and develop curriculum designed to meet needs of students. Visits classrooms to observe effectiveness of instructional methods and material. Evaluates teaching techniques and recommends changes for improving them. Provides teachers with supplies, equipment, and visual and other instructional aids. Conducts workshops and conferences for teachers to study new classroom procedures, new instructional materials, and other aids to teaching. Assists in recruitment and in-service training of teachers. May be designated according to subject matter field or department administered as Supervisor, Adult Education (education); Supervisor, Agricultural Education (education); Supervisor, Elementary Education (education); Supervisor, Home Economics (education); Supervisor, Industrial Arts Education (education); Supervisor, Modern Languages (education); Supervisor, Trade And Industrial Education (education).
GOE: 11.07.03 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

099.117-030 DIRECTOR, EDUCATION (museums)

Plans, develops, and administers educational program of museum, zoo, or similar institution: Confers with administrative personnel to decide scope of program to be offered. Prepares schedules of classes and rough drafts of course content to determine number and background of instructors needed. Interviews, hires, trains, and evaluates work performance of education department staff. Contacts and arranges for services of guest lecturers from academic institutions, industry, and other establishments to augment education staff members in presentation of classes. Assists instructors in preparation of course descriptions and informational materials for publicity or distribution to class members. Prepares budget for education programs and directs maintenance of records of expenditures, receipts, and public and school participation in programs. Works with other staff members to plan and present lecture series, film programs, field trips, and other special activities. May teach classes. May speak before school and community groups and appear on radio or television to promote institution programs. May coordinate institution educational activities with those of other area organizations to maximize utilization of resources. May train establishment volunteers to assist in presentation of classes or tours. May develop and submit program and activity grant proposals and applications and implement programs funded as result of successful applications.
GOE: 11.07.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 86

099.167-010 CERTIFICATION AND SELECTION SPECIALIST (education)

Interviews, examines, and evaluates qualifications of applicants for teaching positions in public school system, using guidelines established by school district and state education licensing codes: Reviews and evaluates construction of written examinations to ensure that questions meet district's testing standards. Confers with other members of staff in order to coordinate district's teacher recruiting efforts. Reviews transcripts and interviews candidates to ascertain qualifications for positions within district. Corrects and scores essay portions of examinations, utilizing knowledge of teaching methods. Authorizes preparation of paper work assigning teaching candidates to positions. Analyzes reports and statistical data on criteria used to select, examine, and recruit teaching staff to ensure that methods conform to predetermined policies, standards, and codes, and recommends procedure revisions as needed. Informs candidates of employment possibilities within district. May evaluate qualifications of candidates applying for other certificated positions within district.
GOE: 11.03.04 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

099.167-014 CONSULTANT, EDUCATION (education)

Plans and coordinates educational policies for specific subject area or grade level: Develops programs for in-service education of teaching personnel. Confers with federal, state, and local school officials to develop curricula and establish guidelines for educational programs. Confers with lay and professional groups to disseminate and receive input on teaching methods. Reviews and evaluates curricula for use in schools and assists in adaptation to local needs. Interprets and enforces provisions of state education codes and rules and regulations of State Board of Education. Conducts or participates in workshops, committees, and conferences designed to promote intellectual, social, and physical welfare of students. Studies and prepares recommendations on instructional materials, teaching aids, and related equipment. Prepares or approves manuals, guidelines, and reports on state educational policies and practices for distribution to school districts. Advises school officials on implementation of state and federal programs and procedures. Conducts research into areas, such as teaching methods and techniques. May perform tasks at local school district level or as independent consultant in area of expertise. May be designated as consultant in specific area, such as reading, elementary education, or audio-visual education.
GOE: 11.07.03 STRENGTH: S GED: R6 M6 L5 SVP: 8 DLU: 77

099.167-018 DIRECTOR, INSTRUCTIONAL MATERIAL (education)

Directs and coordinates preparation, development, and use of educational material in public school system: Confers with members of various educational committees and advisory groups to obtain knowledge of subject teaching areas, and to relate curriculum materials to specific subjects, individual student needs, and occupational areas. Coordinates activities of workers engaged in cataloging, distributing, and maintaining educational materials and equipment in curriculum library and laboratory. Reviews educational materials, such as video tapes, slides, and programmed texts, for educational content, and recommends acquisition of materials that meet district's standards. Advises staff members in techniques and methods of developing and evaluating specialized materials and instructional units. Organizes and implements use of new instructional systems. May train teachers and other staff in use of materials and equipment.
GOE: 11.07.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

099.167-022 EDUCATIONAL SPECIALIST (education) alternate titles: director, evaluation and research

Directs research activities concerned with educational programs and services in school system: Formulates and designs procedures to determine if program objectives are being met. Develops tests to measure effectiveness of curriculum or services and to interpret pupil intellectual and social development and group and school progress. Develops questionnaires and interviews school staff and administrators to obtain information about curriculum. Evaluates data obtained from study and prepares narrative and statistical reports for dissemination to school administrators. Formulates recommendations and procedures for current and proposed units of instruction. Develops in-service training program for staff. May devise questionnaire to evaluate training program. May specialize in research activities concerned with elementary, secondary, college, or other specialized educational programs. May evaluate staff performance. May plan budget.
GOE: 11.07.03 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 81

099.167-026 MUSIC SUPERVISOR (education)

Directs and coordinates activities of teaching personnel engaged in instructing students in vocal and instrumental music in school system: Consults with teaching and administrative staff to plan and develop music education curriculum. Observes, evaluates, and recommends changes in work of teaching staff to strengthen teaching skills in classroom. Analyzes music education program

evaluate instructional methods and materials. Orders instructional materials, upplies, equipment, and visual aids designed to meet training needs of stu ents. Authorizes purchase of musical instruments for school system. Inspects nd authorizes repair of instruments. Establishes interschool orchestra, band, nd choral group to represent schools at civic and community events.
OE: 11.07.03 STRENGTH: S GED: R5 M2 L5 SVP: 8 DLU: 77

99.167-030 EDUCATIONAL RESOURCE COORDINATOR (museums)
Directs operation of educational resource center of museum, zoo, or similar stablishment. Maintains collections of slides, video tapes, programmed texts, nd other educational materials related to institution specialty, storing or filing aterials according to subject matter, geographic or ethnic association, or his orical period. Composes or directs others in composition of descriptions of ma erials, and prepares catalog listing materials for use of museum staff members, rea school teachers, and others. Compiles list of books, periodicals, and other aterials designed to augment items available in resource center. Explains stor ge and cataloging systems to teachers and others who visit center and suggests aterials for various projects, such as preparing school classes for tour of insti ution or presentation of lecture for community group. Issues loan materials to eachers or lecturer, or schedules and coordinates delivery of materials to des gnated locations. Maintains records of loans and prepares circulation reports or review by administrative personnel. Conducts workshops to acquaint edu ators with use of institution's facilities and materials. Attends teacher meetings nd conventions to promote use of institution services.
GOE: 11.07.03 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 86

99.167-034 DIRECTOR OF PUPIL PERSONNEL PROGRAM (education)
Directs pupil information data system program in support of educational ervices, in accordance with governmental laws and regulations for school dis rict. Develops and maintains compliance program to meet legal requirements oncerning students rights to privacy and due process of law in accordance to pplicable laws and regulations. Directs and coordinates activities of clerical taff engaged in compiling, maintaining, and releasing pupil records and infor nation. Confers with staff and reviews records management system to rec ommend changes to improve system, utilizing knowledge of filing methods and oding system, equipment, legal problems, and Board of Education require ments. Provides in-service training on topics, such as legal requirements con erning pupil records and information and to improve quality of report writing. Prepares departmental budget, records, and reports.
GOE: 11.07.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 86

99.223-010 INSTRUCTOR, DRIVING (education)
Instructs individuals and groups in theory and application of automobile driv ng skills. Demonstrates and explains handling of automobile in emergencies, driving techniques, and mechanical operation of automobile, using blackboard diagrams, audiovisual aids, and driving simulators. Observes individual's driving habits and reactions under various driving conditions to ensure conformance with vehicle operational standards and state vehicle code. May test hearing and vision of individuals, using lettered charts and colored lights. May teach motor vehicle regulations and insurance laws. May teach operation of vehicles other than automobile and be identified according to type of vehicle.
GOE: 09.03.03 STRENGTH: L GED: R4 M2 L3 SVP: 4 DLU: 77

099.224-010 INSTRUCTOR, PHYSICAL EDUCATION (education) alternate titles: teacher, physical education
Instructs students in physical education activities in educational institution. Plans physical education program to promote development of student's physical attributes and social skills. Teaches individual and team sports to students, utilizing knowledge of sports techniques and of physical capabilities of students. Organizes, leads, instructs, and referees indoor and outdoor games, such as volleyball, baseball, and basketball. Instructs individuals or groups in beginning or advanced calisthenics, gymnastics, or corrective exercises, determining type and level of difficulty of exercises, corrections needed, and prescribed movements, applying knowledge of sports, physiology, and corrective techniques. Teaches and demonstrates use of gymnastic and training apparatus, such as trampolines and weights. Confers with students, parents, and school counselor to resolve student problem. May select, store, order, issue, and inventory equipment, materials, and supplies used in physical education program. May specialize in instructing specific sport, such as tennis, swimming, or basketball. May teach students with disabilities. May be required to have certification from state.
GOE: 11.02.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 81

099.224-014 TEACHER, ADVENTURE EDUCATION (education)
Instructs and leads students in variety of stressful and challenging activities, such as rock climbing, canoeing, spelunking, and skiing to build student confidence and promote physical, mental, and social development. Appraises students' tolerance to stress and selects and structures learning environment that provides for success in activities appropriate to maturity, interests, and abilities of students. Demonstrates basic skills, safety precautions, and other techniques to prepare students for activities. Arranges for provisions, such as transportation, food, and equipment. Teaches camping and related outdoor skills to students, staff, and volunteers.
GOE: 10.02.03 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 86

099.227-010 CHILDREN'S TUTOR (domestic ser.)
Cares for children in private home, overseeing their recreation, diet, health, and deportment. Teaches children foreign languages, and good health and personal habits. Arranges parties, outings, and picnics for children. Takes disciplinary measures to control children's behavior. Ascertains cause of behavior problems of children and devises means for solving them. When duties are confined to care of young children may be designated Children's Tutor, Nursery (domestic ser.).
GOE: 10.03.03 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 77

099.227-014 INSTRUCTOR, CORRESPONDENCE SCHOOL (education)
Plans course of study for students enrolled in correspondence courses to obtain high school, college, or other specialized subject area instruction. Reviews enrollment applications and oversees mailing of course materials to students. Corrects, grades, and comments on lesson assignments submitted by students. Corresponds with students to answer questions pertaining to course.
GOE: 11.02.01 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

099.227-018 INSTRUCTOR, GROUND SERVICES (air trans.)
Conducts classroom instruction, on-the-job training, and orientation sessions for new and experienced ground personnel on various subjects, such as aircraft and station familiarization, company policies and procedures, and specific job duties. Develops and prepares course outlines, instructional procedures, and study materials for nontechnical occupations in such areas as airfreight, customer services load planning, ramp services, reservations, and ticketing. Presents course material through use of audiovisual aids, classroom lectures, on-the-job training, and printed handouts. Tests student's progress, using oral interviews, written examinations, and performance tests to ascertain comprehension of subject matter. Prepares reports of attendance, grades, and training activities. Keeps records of training accomplishments and confers with supervisory personnel regarding training needs. Conducts recurrent on-the-job training or classroom instruction to acquaint experienced workers with changing procedures or with use of new equipment. Coordinates training activities with local station manager. May conduct special training programs in company and industry procedures, regulations, rules, and techniques relating to passenger travel for workers employed by travel agencies.
GOE: 11.02.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

099.227-022 INSTRUCTOR, MILITARY SCIENCE (education)
Teaches military subjects, such as employment and deployment of weapons systems, military aspects of geopolitics, and defense concepts in public and private secondary schools and colleges and universities offering Reserve Officers' Training program. Specializes in teaching subjects concerned with particular branch of military tactics, such as aerospace science, naval science, or military science.
GOE: 11.02.01 STRENGTH: S GED: R5 M3 L5 SVP: 9 DLU: 77

099.227-026 INSTRUCTOR, MODELING (education)
Instructs individuals and groups in techniques and methods of self-improvement, utilizing principles of modeling, such as visual poise, wardrobe coordination, and cosmetic application. Analyzes appearance of individual to determine self-improvement considering factors, such as figure, complexion, and body posture. Explains and demonstrates methods and techniques of self-improvement. Observes student, such as ascending and descending stairs, walking, and in cosmetic application sessions to ensure conformance to classroom instruction. Instructs students in selecting and coordinating wardrobe.
GOE: 01.08.01 STRENGTH: L GED: R4 M2 L4 SVP: 4 DLU: 77

099.227-030 TEACHER, ADULT EDUCATION (education)
Instructs out-of-school youths and adults in academic and nonacademic courses in public or private schools or other organizations. Prepares outline of instructional program and studies and assembles material to be presented. Presents lectures and discussions to group to increase students' knowledge or vocational competence. Tests and grades students on achievement in class. Teaches courses, such as citizenship, fine arts, and homemaking, to enrich students' cultural and academic backgrounds. Conducts workshops and demonstrations to teach such skills as driving, sports, and dancing, or to provide training for parenthood. May teach basic courses in American history, principles, ideas, and customs and in English to foreign-born and be designated Teacher, Citizenship (education).
GOE: 11.02.01 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

099.227-034 TUTOR (education)
Teaches academic subjects, such as English, mathematics, and foreign languages to pupils requiring private instruction, adapting curriculum to meet individual's needs. May teach in pupil's home.
GOE: 11.02.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

099.227-038 TEACHER (museums)
Teaches classes, presents lectures, conducts workshops, and participates in other activities to further educational program of museum, zoo, or similar institution. Plans course content and method of presentation, and prepares outline of material to be covered and submits it for approval. Selects and assembles materials to be used in teaching assignment, such as pieces of pottery or samples of plant life, and arranges use of audiovisual equipment or other teaching aids. Conducts classes for children in various scientific, history, or art subjects, utilizing museum displays to augment standard teaching methods and adapting course content and complexity to ages and interests of students. Teaches adult classes in such subjects as art, history, astronomy, or horticulture, using audiovisual aids, demonstration, or laboratory techniques appropriate to subject matter. Presents series of lectures on subjects related to institution collections, often

incorporating films or slides into presentation. Conducts seminars or workshops for school system teachers or lay persons to demonstrate methods of using institution facilities and collections to enhance school programs or to enrich other activities. Conducts workshops or field trips for students or community groups and plans and directs activities associated with projects. Plans and presents vacation or weekend programs for elementary or preschool children, combining recreational activities with teaching methods geared to age groups. Conducts classes for academic credit in cooperation with area schools or universities. Teaches courses in museum work to participants in work-study programs. Works with adult leaders of youth groups to assist youths to earn merit badges or fulfill other group requirements. Maintains records of attendance. Evaluates success of courses, basing evaluation on number and enthusiasm of persons participating and recommends retaining or dropping course in future plans. When course is offered for academic credit, evaluates class member performances, administers tests, and issues grades in accordance with methods used by cooperating educational institution.
GOE: 11.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

099.227-042 TEACHER, RESOURCE (education)
Teaches basic academic subjects to students requiring remedial work, using special help programs to improve scholastic level: Teaches basic subjects, such as reading and math, applying lesson techniques designed for short attention spans. Administers achievement tests and evaluates test results to discover level of language and math skills. Selects and teaches reading material and math problems related to everyday life of individual student. Confers with school counselors and teaching staff to obtain additional testing information and to gain insight on student behavioral disorders affecting learning process. Designs special help programs for low achievers and encourages parent-teacher cooperation. Attends professional meetings, writes reports, and maintains records.
GOE: 11.02.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 86

099.327-010 TEACHER AIDE I (education) alternate titles: teacher assistant
Performs any combination of following instructional tasks in classroom to assist teaching staff of public or private elementary or secondary school: Discusses assigned teaching area with classroom teacher to coordinate instructional efforts. Prepares lesson outline and plan in assigned area and submits outline to teacher for review. Plans, prepares, and develops various teaching aids, such as bibliographies, charts, and graphs. Presents subject matter to students, utilizing variety of methods and techniques, such as lecture, discussion, and supervised role playing. Prepares, administers, and grades examinations. Assists students, individually or in groups, with lesson assignments to present or reinforce learning concepts. Confers with parents on progress of students. May specialize in single subject area. May be required to have completed specified number of college education credits.
GOE: 11.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 86

10 OCCUPATIONS IN MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES

This division includes occupations concerned with library and archival sciences, including public and private libraries and archives, and with maintaining museums, galleries, and related exhibits.

100 LIBRARIANS

This group includes occupations concerned with administering libraries and performing related library services. Includes selecting, acquiring, cataloging, classifying, circulating, and maintaining library materials; furnishing reference, bibliographical, and reader's advisory services.

100.117-010 LIBRARY DIRECTOR (library) alternate titles: librarian, head
Plans and administers program of library services: Submits recommendations on library policies and services to governing body, such as board of directors or board of trustees, and implements policy decisions. Analyzes, selects, and executes recommendations of personnel, such as department chiefs or branch supervisors. Coordinates activities of branch or departmental libraries. Analyzes and coordinates departmental budget estimates and controls expenditures to administer approved budget. Reviews and evaluates orders for books and audiovisual materials. Examines trade publications and materials, interviews publishers' representatives, and consults with others to select materials. Administers personnel regulations, interviews and appoints job applicants, rates staff performance, and promotes and discharges employees. Plans and conducts staff meetings and participates in community and professional meetings to discuss and act on library problems. Delivers book reviews and lectures to publicize library activities and services. Provides library public relations services. May examine and select materials to be discarded, repaired, or replaced. May be designated according to governmental subdivision served as City Library Director (library); County-Library Director (library).
GOE: 11.07.04 STRENGTH: S GED: R6 M4 L5 SVP: 8 DLU: 81

100.117-014 LIBRARY CONSULTANT (library)
Advises administrators of public libraries: Analyzes administrative policies, observes work procedures, and reviews data relative to book collections to determine effectiveness of library service to public. Compares allocations for building funds, salaries, and book collections with statewide and national standards, to determine effectiveness of fiscal operations. Gathers statistical data, such as population and community growth rates, and analyzes building plans to determine adequacy of programs for expansion. Prepares evaluation of library systems based on observations and surveys, and recommends measures to improve organization and administration of systems.
GOE: 11.07.04 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 86

100.127-010 CHIEF LIBRARIAN, BRANCH OR DEPARTMENT (library) alternate titles: principal librarian; senior librarian; supervising librarian
Coordinates activities of library branch or department, and assists patrons in selection and location of books, audiovisual materials, and other materials: Trains and directs workers in performance of such tasks as receiving, shelving, and locating materials. Examines book reviews, publishers' catalogs, and other information sources to recommend material acquisition. Searches catalog files, biographical dictionaries, and indexes, and examines content of reference materials to assist patrons in locating and selecting materials. May assemble and arrange materials for display. May prepare replies to mail requests for information. May be designated according to type of library as Chief Librarian, Branch (library); or according to department as Chief Librarian, Circulation Department (library); Chief Librarian, Extension Department (library); Chief Librarian, General Reference Department (library); Chief Librarian, Music Department (library); Chief Librarian, Periodical Reading Room (library); Chief Librarian, Readers' Advisory Service (library); Chief Librarian, Work With Blind (library).
GOE: 11.07.04 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

100.127-014 LIBRARIAN (library)
Maintains library collections of books, serial publications, documents, audiovisual, and other materials, and assists groups and individuals in locating and obtaining materials: Furnishes information on library activities, facilities, rules, and services. Explains and assists in use of reference sources, such as card or book catalog or book and periodical indexes to locate information. Describes or demonstrates procedures for searching catalog files. Searches catalog files and shelves to locate information. Issues and receives materials for circulation or for use in library. Assembles and arranges displays of books and other library materials. Maintains reference and circulation materials. Answers correspondence on special reference subjects. May compile list of library materials according to subject or interests, using computer. May select, order, catalog, and classify materials. May prepare or assist in preparation of budget. May plan and direct or carry out special projects involving library promotion and outreach activity and be designated Outreach Librarian (library). May be designated according to specialized function as Circulation Librarian (library); Readers'-Advisory-Service Librarian (library); or Reference Librarian (library).
GOE: 11.02.04 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 81

100.167-010 AUDIOVISUAL LIBRARIAN (library) alternate titles: film librarian; recordings librarian
Plans audiovisual programs and administers library of film and other audiovisual materials: Assists patrons in selection of materials, utilizing knowledge of collections. Advises other library personnel on audiovisual materials and appropriate selection for particular needs and uses. Establishes and maintains contact with major film distributors and resources for procurement of tapes and cassettes. Evaluates materials, considering their technical, informational, and aesthetic qualities, and selects materials for library collections. Prepares summaries of acquisitions for catalog. Prepares and arranges audiovisual programs for presentation to groups and may lead discussions after film showings. Advises those planning audiovisual programs on technical problems, such as acoustics, lighting, and program content. Evaluates audiovisual equipment and gives advice in selection of equipment, considering factors, such as intended use, quality, and price. May advise in planning and layout of physical facilities for audiovisual services. May operate film projectors, splicers, rewinders, film inspection equipment, and tape and record playing equipment. May train personnel in operation and maintenance of audiovisual equipment. May select, procure, and maintain framed art prints collection.
GOE: 11.02.04 STRENGTH: L GED: R5 M3 L3 SVP: 7 DLU: 77

100.167-014 BOOKMOBILE LIBRARIAN (library)
Provides library services from mobile library within given geographical area: Surveys needs and selects books and materials for library. Publicizes visits to area to stimulate reading interest. May prepare special collections for schools and other groups. May arrange bookmobile schedule. May drive bookmobile.
GOE: 11.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

100.167-018 CHILDREN'S LIBRARIAN (library)
Manages library program for children: Selects books and audiovisual materials of interest to children to be acquired by library. Assists children in selecting and locating library materials. Plans and conducts programs for children to encourage reading, viewing, and listening and use of library materials and facilities. Confers with teachers, parents, and community groups to assist in developing programs to encourage and improve children's communication skills. Compiles lists of materials of interest to children. Activities may include story telling, book talks, puppet shows, and film and multimedia programs.
GOE: 11.02.04 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

100.167-022 INSTITUTION LIBRARIAN (library) alternate titles: hospital librarian; patient's librarian; prison librarian
Plans and directs library program for residents and staff of extended care facilities, such as mental institutions, correctional institutions, or institutions for

physically handicapped or mentally retarded. Develops library policies and programs and prepares operational budgets. Selects, acquires, and organizes library materials for convenient access. Provides readers' advisory services on basis of knowledge of current reviews and bibliographies. Reviews requests, and selects books and other library materials according to mental state, educational background, and special needs of residents. Assembles book reviews for institution's bulletins or newspapers, and circulates reviews among residents. Provides handicapped or bedridden residents with reading aids, such as prism glasses, page turners, bookstands, or talking books, and with phonograph records.
GOE: 11.02.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

100.167-026 LIBRARIAN, SPECIAL LIBRARY (library)
Manages library or section containing specialized materials for industrial, commercial, or governmental organizations, or for such institutions as schools and hospitals: Selects, orders, catalogs, and classifies special collections of technical books, manufacturers' catalogs and specifications, periodicals, magazines, newspapers, audio-visual material, microforms, journal reprints, and other materials. Searches literature, compiles accession lists, and annotates or abstracts materials. Assists patrons in research problems. May key information into computer to store or search for selected material. May translate or order translation of materials from foreign languages into English. May train other workers engaged in cataloguing, locating, filing, or copying selected material. May be designated according to subject matter, specialty or library, or department as Art Librarian (library); Business Librarian (library); Engineering Librarian (library); Law Librarian (library); Map Librarian (library); Medical Librarian (library).
GOE: 11.02.04 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 81

100.167-030 MEDIA SPECIALIST, SCHOOL LIBRARY (library) alternate titles: librarian, school; media center director, school
Assesses and meets needs of students and faculty for information, and develops programs to stimulate students' interests in reading and use of types of resources: Selects and organizes books, films, tapes, records, and other materials and equipment. Suggests appropriate books to students for classroom assignments and personal readings. Plans and carries out program of instruction in use by school library media center. Prepares and administers budget for media center. Confers with faculty to provide materials for classroom instruction. Confers with parents, faculty, public librarians, and community organizations to develop programs to enrich students' communications skills. Reviews records to compile lists of overdue materials and notifies borrowers to arrange for their return.
GOE: 11.02.04 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 80

100.167-034 YOUNG-ADULT LIBRARIAN (library)
Plans and conducts library program to provide special services for young adults: Selects books and audiovisual materials of interest to young adults to be acquired by library. Assists young adults in selecting materials. Plans and organizes young adult activities, such as film programs, chess clubs, creative writing clubs, and photography contests. Delivers talks on books to stimulate reading. Compiles lists of library materials of interest to young adults. Confers with parents, teachers, and community organizations to assist in developing programs to stimulate reading and develop communication skills.
GOE: 11.02.04 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 77

100.167-038 NEWS LIBRARIAN (library) alternate titles: news information resource manager; news library director; newspaper library manager
Manages information resources library stored in files, on tape or microfilm, or in computers for use by news and editorial staff in publishing establishments, such as newspaper and magazine publishers, and in broadcasting establishments, such as radio and television stations: Directs activities of workers engaged in clipping, classifying, cataloging, indexing, storing, editing, and retrieving library information, or performs these activities as needed. Researches, retrieves, and disseminates information in resource library or commercial data bases in response to requests from news or editorial staff, using knowledge of classification system or computer data base. Maintains records and statistics on use of data bases and information services provided. May manage in-house data base of news information, assign classification terms to news articles, input news articles into data base, and research news information in in-house data base. May develop data bases for data storage and retrieval, according to needs of news staff. May hire, train, schedule, and evaluate library staff. May prepare library budgets. May promote and market library products and services to public. May coordinate activities of library with activities of other departments. May select and purchase reference books for library collection. May manage graphics library, assign classification terms to graphics, and research graphics and be designated Photo-Graphics Librarian (library).
GOE: 11.02.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 90

100.267-010 ACQUISITIONS LIBRARIAN (library)
Selects and orders books, periodicals, films, and other materials for library. Reviews publishers' announcements and catalogs, and compiles list of publications to be purchased. Compares selections with card catalog and orders-in-process to avoid duplication. Circulates selection lists to branches and departments for comments. Selects vendors on basis of such factors as discount allowance and delivery dates. Compiles statistics on purchases, such as total purchases, average price, and fund allocations. May recommend acquisition of materials from individuals or organizations or by exchange with other libraries.
GOE: 11.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

100.267-014 LIBRARIAN, SPECIAL COLLECTIONS (library)
Collects and organizes books, pamphlets, manuscripts, and other materials on select subjects to be used for research: Organizes collections according to field of interest. Examines reference works and consults specialists preparatory to selecting materials for collections. Compiles bibliographies. Appraises books, using references, such as bibliographies, book auction records, and special catalogs on incunabula (printing prior to 1500). Publishes papers and bibliographies on special collections to notify scholars of available materials. Lectures on booklore, such as history of printing, bindings, and illuminations. May plan and arrange displays for library exhibits. May index and reproduce materials for sale to other libraries.
GOE: 11.02.04 STRENGTH: L GED: R5 M2 L5 SVP: 8 DLU: 77

100.367-010 BIBLIOGRAPHER (profess. & kin.)
Compiles lists of books, periodical articles, and audiovisual materials, on specialized subjects: Annotates bibliographies with physical description and analysis of subject content of materials. Recommends acquisition of materials in specialized subject.
GOE: 11.02.04 STRENGTH: S GED: R4 M2 L4 SVP: 7 DLU: 77

100.367-014 CLASSIFIER (library)
Classifies library materials, such as books, audiovisual materials, and periodicals, according to subject matter: Reviews materials to be classified and searches information sources, such as book reviews, encyclopedias, and technical publications to determine subject matter of materials. Selects classification numbers and descriptive headings according to Dewey Decimal, Library of Congress, or other classification systems. Makes sample cards containing author, title, and classification number to guide CATALOG LIBRARIAN (library) in preparing catalog cards for books and periodicals. Assigns classification numbers, descriptive headings, and explanatory summaries to book and catalog cards to facilitate locating and obtaining materials. Composes annotations (explanatory summaries) of material content.
GOE: 11.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

100.367-018 LIBRARY TECHNICAL ASSISTANT (library) alternate titles: library assistant; library technician
Provides information service, such as answering questions regarding card catalogs, and assists public in use of bibliographic tools, such as Library of Congress catalog: Performs routine descriptive cataloging, such as fiction and children's literature. Files cards in catalog drawers according to system [illegible] Answers routine inquiries, and refers persons requiring professional assistance to LIBRARIAN (library). Verifies bibliographic information on order requests. Directs activities of workers in maintenance of stacks or in section of department or division, such as ordering or receiving section of acquisitions department, card preparation activities in catalog department, or limited loan or reserve desk operation of circulation department.
GOE: 11.02.04 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

100.367-022 MUSIC LIBRARIAN (radio-tv broad.) alternate titles: librarian; music director
Classifies and files musical recordings, sheet music, original arrangements, and scores for individual instruments. Selects music for subject matter of program or for specific visual or spoken action. Suggests musical selections to DIRECTOR, MUSIC (motion picture; radio-tv broad.) 152.047-018 or DIRECTOR, PROGRAM (radio-tv broad.) 184.167-030 or DISK JOCKEY (radio-tv broad.) 159.147-014. May issue required music to CONDUCTOR, ORCHESTRA (profess. & kin.) 152.047-014, or other studio personnel. May track musical selections broadcasted, using computer. May listen to music, using playback equipment, to verify quality of recordings meet broadcast standards.
GOE: 11.02.04 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 89

100.367-026 MUSIC LIBRARIAN, INTERNATIONAL BROADCAST (radio-tv broad.)
Maintains script archive and music library used for preparing programs for foreign broadcast, utilizing knowledge of foreign languages and of listening tastes of people of foreign countries. Compiles statistical and financial library reports.
GOE: 11.02.04 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

100.387-010 CATALOG LIBRARIAN (library) alternate titles: cataloger; descriptive catalog librarian
Compiles information on library materials, such as books and periodicals, and prepares catalog cards to identify materials and to integrate information into library catalog: Verifies author, title, and classification number on sample catalog card received from CLASSIFIER (library) against corresponding data on title page. Fills in additional information, such as publisher, date of publication, and edition. Examines material and notes additional information, such as bibliographies, illustrations, maps, and appendices. Copies classification number from sample card into library material for identification. Files cards into assigned sections of catalog. Tabulates number of sample cards according to quantity of material and catalog subject headings to determine amount of new cards to be ordered or reproduced. Prepares inventory card to record purchase information and location of library material. Requisitions additional cards. Records new information, such as death date of author and revised edition date, to amend cataloged cards. May supervise activities of other workers in unit.

GOE: 11.02.04 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 77

101 ARCHIVISTS

This group includes occupations concerned with collecting, evaluating, systemizing, preserving, and making available for reference public records and documents of historical significance.

101.167-010 ARCHIVIST (profess. & kin.)

Appraises and edits permanent records and historically valuable documents, participates in research activities based on archival materials, and directs safekeeping of archival documents and materials: Analyzes documents, such as government records, minutes of corporate board meetings, letters from famous persons, and charters of nonprofit foundations, by ascertaining date of writing, author, or original recipient of letter, to appraise value to posterity or to employing organization. Directs activities of workers engaged in cataloging and safekeeping of valuable materials and directs disposition of worthless materials. Prepares or directs preparation of document descriptions and reference aids for use of archives, such as accession lists, indexes, guides, bibliographies, abstracts, and microfilmed copies of documents. Directs filing and cross indexing of selected documents in alphabetical and chronological order. Advises government agencies, scholars, journalists, and others conducting research by supplying available materials and information according to familiarity with archives and with political, economic, military, and social history of period. Requests or recommends pertinent materials available in libraries, private colllections, or other archives. Selects and edits documents for publication and display, according to knowledge of subject, literary or journalistic expression, and techniques for presentation and display. May be designated according to subject matter specialty as Archivist, Economic History (profess. & kin.); Archivist, Military History (profess. & kin.); Archivist, Political History (profess. & kin.); or according to nature of employing institution as Archivist, Nonprofit Foundation (nonprofit organ.). In smaller organizations, may direct activities of libraries.
GOE: 11.03.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

102 MUSEUM CURATORS AND RELATED OCCUPATIONS

This group includes occupations concerned with administering museums, art galleries, arboreta, historical sites, and botanical and zoological gardens, and performing related services. Includes activities in collecting, authenticating, preserving, maintaining, exhibiting, researching, and furnishing information on collections of historical, artistic, scientific, or technological significance or of general public interest.

102.017-010 CURATOR (museums)

Directs and coordinates activities of workers engaged in operating exhibiting institution, such as museum, botanical garden, arboretum, art gallery, herbarium, or zoo: Directs activities concerned with instructional, acquisition, exhibitory, safekeeping, research, and public service objectives of institution. Assists in formulating and interpreting administrative policies of institution. Formulates plans for special research projects. Oversees curatorial, personnel, fiscal, technical, research, and clerical staff. Administers affairs of institution by corresponding and negotiating with administrators of other institutions to obtain exchange of loan collections or to exchange information or data, maintaining inventories, preparing budget, representing institution at scientific or association conferences, soliciting support for institution, and interviewing and hiring personnel. Obtains, develops, and organizes new collections to expand and improve educational and research facilities. Writes articles for publication in scientific journals. Consults with board of directors and professional personnel to plan and implement acquisitional, research, display and public service activities of institution. May participate in research activities. May be designated according to field of specialization as Curator, Art Gallery (museums); Curator, Herbarium (museums); Curator, Horticultural Museum (museums); Curator, Medical Museum (museums); Curator, Natural History Museum (museums); Curator, Zoological Museum (museums); Director, Industrial Museum (museums).
GOE: 11.07.04 STRENGTH: L GED: R6 M5 L6 SVP: 9 DLU: 77

102.117-010 SUPERVISOR, HISTORIC SITES (government ser.)

Directs and coordinates activities of personnel engaged in investigating, acquiring, marking, improving, and preserving historic sites and natural phenomena in conformity with state policy. Authorizes acquisition and improvement of sites, such as historic homes and battlefields, within allocated budget. Recommends appropriation of additional funds where necessary to purchase or restore landmarks. Negotiates with representatives of local governments, philanthropic organizations, and other interested groups to acquire properties. Provides information and encouragement to private individuals or civic groups attempting to acquire and maintain landmarks not considered feasible for state acquisition. Directs or participates in archeological research efforts in state parks. Directs design, preparation, and installation of museum exhibits and historical markers. Directs workers engaged in preparation of brochures, exhibits, maps, photographs, and similar materials to stimulate public interest in visiting sites. Serves as custodian of historic documents acquired during research efforts.
GOE: 11.05.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

102.117-014 DIRECTOR, MUSEUM-OR-ZOO (museums)

Administers affairs of museum, zoo, or similar establishment: Confers with institution's board of directors to formulate policies and plan overall operations. Directs acquisition, education, research, public service, and development activities of institution, consulting with curatorial, administrative, and maintenance staff members to implement policies and initiate programs. Works with members of curatorial and administrative staffs to acquire additions to collections. Confers with administrative staff members to determine budget requirements, plan fund raising drives, prepare applications for grants from government agencies or private foundations, and solicit financial support for institution. Establishes and maintains contact with administrators of other institutions to exchange information concerning operations and plan, coordinate, or consolidate community service and education programs. Represents institution at professional and civic social events, conventions, and other gatherings to strengthen relationships with cultural and civic leaders, present lectures or participate in seminars, or explain institution's functions and seek financial support for projects. Reviews materials prepared by staff members, such as articles for journals, requests for grants, and reports on institution programs, and approves materials or suggests changes. Instructs classes in institution's education program or as guest lecturer at university. Writes articles for technical journals or other publications.
GOE: 11.02.01 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 86

102.167-010 ART CONSERVATOR (museums)

Coordinates activities of subordinates engaged in examination, repair, and conservation of art objects: Examines art objects to determine condition, need for repair, method of preservation, and authenticity, using x rays, radiographs, and special lights. Directs curatorial and technical staffs on handling, mounting, care, and storage of art objects. Estimates cost of restoration work.
GOE: 01.06.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

102.167-014 HISTORIC-SITE ADMINISTRATOR (museums)

Manages operation of historic structure or site: Discusses house or site operation with governing body representatives to form or change policies. Oversees activities of building and grounds maintenance staff and other employees. Maintains roster of volunteer guides, and contacts volunteers to conduct tours of premises according to schedule. Conducts tours, explaining points of interest and answers visitors' questions. Studies documents, books, and other materials to obtain information concerning history of site or structure. Conducts classes in tour presentation methods for volunteer guides. Accepts group reservations for house tours and special social events. Arranges for refreshments, entertainment, and decorations for special events. Collects admission and special event fees, and maintains records of receipts, expenses, and numbers of persons served. Assists in planning publicity, and arranges for printing of brochures or placement of information in media. Inspects premises for evidence of deterioration and need for repair, and notifies governing body of such need.
GOE: 11.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 5 DLU: 86

102.167-018 REGISTRAR, MUSEUM (museums)

Maintains records of accession, condition, and location of objects in museum collection, and oversees movement, packing, and shipping of objects to conform to insurance regulations: Observes unpacking of objects acquired by museum through gift, purchase, or loan to determine that damage or deterioration to objects has not occurred. Registers and assigns accession and catalog numbers to all objects in collection, according to established registration system. Composes concise description of objects, and records descriptions on file cards and in collection catalogs. Oversees handling, packing, movement, and inspection of all objects entering or leaving establishment, including traveling exhibits, and confers with other personnel to develop and initiate most practical methods of packing and shipping fragile or valuable objects. Maintains records of storage, exhibit, and loan locations of all objects in collection for use of establishment personnel, insurance representatives, and other persons utilizing facilities. Prepares acquisition reports for review of curatorial and administrative staff. Periodically reviews and evaluates registration and catalog system to maintain applicability, consistency, and operation. Recommends changes in recordkeeping procedures to achieve maximum accessibility to and efficient retrieval of collection objects. Arranges for insurance of objects on loan or special exhibition, or recommends insurance coverage on parts of or entire collection.
GOE: 07.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 6 DLU: 86

102.261-010 CONSERVATION TECHNICIAN (museums)

Repairs and cleans art objects, such as pottery, statuary, etchings, or tapestries, to restore art objects' natural appearance: Studies descriptive information on object or conducts standard chemical and physical tests to determine such factors as age, composition, and original appearance, and plans methods or procedures for restoring object. Cleans object or broken pieces, using such methods as scraping and applying solvents to metal objects; washing statuary, using soap solutions, or cleaning and polishing furniture and silver objects. Repairs objects, using glue or solder, to assemble broken pieces, buffing assembled object where repaired, or repainting faded or incomplete designs with paint of same chemical composition and color in order to restore original appearance. Notifies superior when problem of restoration requires outside experts. Fabricates or repairs picture frames for paintings, using handtools and power tools and machines. Mounts pictures in frames.
GOE: 01.06.02 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 77

102.261-014 PAINTINGS RESTORER (profess. & kin.) alternate titles: paintings conservator

Restores damaged and faded paintings and preserves paintings, using techniques based on knowledge of art and art materials: Examines surfaces of paint

using magnifying device, and performs tests to determine factors, such as
structure, pigment stability, and probable reaction to various cleaning
ts and solvents. Removes painting from frame. Applies select solvents and
ning agents and uses predetermined method to clean surface of painting and
ove accretions, discolorations, and deteriorated varnish. Stretches new linen
ing, applies paste material to back of painting, and laminates parts together,
g laminating press. Dries laminated painting under controlled conditions to
ent shrinkage. Applies beeswax or other substance to damaged or faded
s where restoration is needed. Studies style, techniques, colors, textures, and
rials used by artist to maintain consistency in reconstruction or retouching
edures. Reconstructs or retouches damaged areas and blends area into adja-
areas to restore painting to original condition. Applies varnish or other pre-
ative to surface of painting and dries under controlled conditions. May re-
e paint layer from backing and remount on canvas, wood, or metal support
g pressure and special adhesives. May apply neutral color powder to dam-
areas to restore areas.
01.02.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

361-010 RESTORER, LACE AND TEXTILES (museums)
estores and prepares ancient textile and lace materials for display in textile
eum: Cleans fabric, using cleaning compounds and techniques based on his-
al knowledge of fabric manufacture and effect of cleaning upon fabric. De-
ps new cleaning compounds and methods when available means are inad-
te or tend to harm fabric. Repairs and reweaves worn, torn, and decayed
cs, using techniques based on knowledge of weaving and lace methods.
nts fabric in frame or other suitable background.
01.06.02 STRENGTH: M GED: R5 M4 L4 SVP: 7 DLU: 77

361-014 RESTORER, CERAMIC (museums)
leans, preserves, restores, and repairs objects made of glass, porcelain,
a, fired clay, and other ceramic materials: Coats excavated objects with sur-
active agents to loosen adhering mud or clay and washes objects with clear
r. Places cleaned objects in dilute hydrochloric acid or other solution to
ve remaining deposits of lime or chalk, basing choice of solution on
vledge of physical and chemical structure of objects and destructive quali-
of solvents. Cleans glass, porcelain, or similar objects by such methods as
ing objects in lukewarm water with ammonia added, wiping gilded or
neled objects with solvent-saturated swab, or rubbing objects with paste
nser. Rubs objects with jewelers' rouge or other mild cleanser, soaks ob-
in distilled water with bleach or solvent added, or applies paste or liquid
ent, such as magnesium silicate or acetone, basing choice of method and
rial on age, condition, and chemical structure of objects, to remove stains
objects. Recommends preservation measures, such as control of tempera-
humidity, and exposure to light, to curatorial and building maintenance
to prevent damage to or deterioration of object. Impregnates surfaces with
ed synthetic lacquers to reduce porosity of material to increase durability
ncient earthenware. Restores or simulates original appearance of objects by
methods as polishing surfaces to restore translucency, removing crackled
and applying soluble synthetic coating, grinding or cutting out chipped
s and repolishing surfaces, or applying matt paints, gold leaf, or other coat-
o object, basing methods and materials used on knowledge of original craft
condition of objects. Repairs broken objects, employing such techniques as
ding edges together with adhesive, inserting dowel pins in sections and ce-
ting together, or affixing adhesive coated strips to inner portions of broken
cts. Replaces missing sections of objects by constructing wire frames of
ing sections, shaping plasticene or other materials over frames, affixing
eled sections to objects with dowels or adhesive, and painting attached sec-
to reproduce original appearance. Constructs replicas of archaeological ar-
ts or historically significant ceramic ware, basing construction design on
curvature, and thickness of excavated shards or pieces of objects available
knowledge of techniques and designs characteristic of period.
01.06.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 86

367-010 FINE ARTS PACKER (museums) alternate titles: art preparator
pecifies types of packing materials, crating, containerization, and special
lling procedures for shipping or storing art objects, scientific specimens,
historical artifacts to minimize damage and deterioration: Confers with cu-
ial personnel regarding status of museum projects and proposed shipping
ansfer dates of exhibitions. Develops methods and procedures for packing
ontainerization of art objects, according to weight and characteristics of
ment. Selects protective or preservative materials, such as excelsior, chemi-
agents, or moistureproof wrapping, to protect shipment against vibration,
sture, impact, or other hazards. Designs special crates, modules, brackets,
traveling frames to meet insurance and museum shipping specifications.
pes and contours internal support modules, based on size and type of paint-
sculptures, bronzes, glass, and other art objects. Directs workers engaged
oving art objects from receiving or storage areas to galleries of museum,
acking shipments, or in rigging sculptures for installation of exhibition. In-
ts incoming shipment to detect damages for insurance purposes. Keeps
rds and documents of incoming and outgoing shipments, or location of
eling exhibitions and loan materials. Prepares and attaches written or pic-
l instructions for unpacking, storage, or for exhibition of contents of ship-
t. May specify type of carrier, such as barge, train, or messenger according
ost considerations and nature of shipment.
05.03.09 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

102.381-010 MUSEUM TECHNICIAN (museums) alternate titles: museum preparator

Prepares specimens for museum collections and exhibits: Cleans rock matrix from fossil specimens, using electric drills, awls, dental tools, chisels, and mallets. Brushes preservatives, such as plaster, resin, hardeners, and shellac on specimens. Molds and restores skeletal parts of fossil animals, using modeling clays and special molding and casting techniques. Constructs skeletal mounts of fossil animals, using tools, such as drill presses, pipe threaders, welding and soldering apparatus, and carpenter's tools. Constructs duplicate specimens, using plaster, glue, latex, and plastiflex-molding techniques. Reassembles fragmented artifacts, and fabricates substitute pieces. Maintains museum files. Cleans, catalogs, labels, and stores specimens. May install, arrange, and exhibit materials.
GOE: 01.06.02 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

109 OCCUPATIONS IN MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with museum, library, and archival science.

109.067-010 INFORMATION SCIENTIST (profess. & kin.) alternate titles: chief information officer; information broker; information manager; information resources director; information resources manager

Designs information system to provide management or clients with specific data from computer storage, utilizing knowledge of electronic data processing principles, mathematics, and computer capabilities: Develops and designs methods and procedures for collecting, organizing, interpreting, and classifying information for input into computer and retrieval of specific information from computer, utilizing knowledge of symbolic language and optical or pattern recognition principles. Develops alternate designs to resolve problems in input, storage, and retrieval of information. May specialize in specific field of information science, such as scientific or engineering research, or in specific discipline, such as business, medicine, education, aerospace, or library science.
GOE: 11.01.01 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

109.067-014 RESEARCH ASSOCIATE (museums)

Plans, organizes, and conducts research in scientific, cultural, historical, or artistic field for use in own work or in project of sponsoring institution: Develops plans for project or studies guidelines for project prepared by professional staff member to outline research procedures to be followed. Plans schedule according to variety of methods to be used, availability and quantity of resources, and number of subordinate personnel assigned to participate in project. Conducts research, utilizing institution library, archives, and collections, and other sources of information, to collect, record, analyze, and evaluate facts. Discusses findings with other personnel to evaluate validity of findings. Prepares reports of completed projects for publication in technical journals, for presentation to agency requesting project, or for use in further applied or theoretical research activities.
GOE: 11.03.03 STRENGTH: S GED: R6 M6 L6 SVP: 7 DLU: 86

109.137-010 SHELVING SUPERVISOR (library)

Supervises and coordinates activities of library workers engaged in replacing books and other materials on shelves according to library classification system: Assigns duties to workers. Trains and directs workers in performance of shelving tasks. Examines materials on shelves to verify accuracy of placement. Counts number of materials placed on shelves to record shelving activity. Marks designated classification number on material, using pen and ink, to facilitate placement on shelves. May sort material, according to author, classification number, subject matter, or title, to arrange material for shelving.
GOE: 11.02.04 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

109.267-010 RESEARCH ASSISTANT I (profess. & kin.)

Conducts research on historic monuments, buildings, and scenes to reconstruct exhibits to scale in dioramas for use of fine-arts students or other purposes. Collects information from libraries, museums, and art institutes. Monitors construction of dioramas to ensure authenticity of proportions, color, and costumes in diorama.
GOE: 11.03.03 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

109.267-014 RESEARCH WORKER, ENCYCLOPEDIA (profess. & kin.)

Analyzes information on specified subjects to answer inquiries from encyclopedia owners, referring to library reference sources or consulting with experts in field of knowledge involved. Prepares written summary of research findings for mailing to inquirers.
GOE: 11.08.02 STRENGTH: S GED: R5 M3 L5 SVP: 6 DLU: 77

109.281-010 ARMORER TECHNICIAN (museums)

Specializes in restoring and preparing exhibits of medieval arms and armor: Assembles parts of armor, helmets, guns, swords, and similar items. Designs and fabricates missing or broken parts. Conducts research to determine authenticity and classifies and catalogs articles. Prepares articles for exhibition.
GOE: 01.06.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

109.361-010 RESTORER, PAPER-AND-PRINTS (library; museums)

Cleans, preserves, restores, and repairs books, documents, maps, prints, photographs, and other paper objects of historic or artistic significance: Examines

or tests objects to determine physical condition and chemical structure of paper, ink, paint, or other coating, in order to identify problem and plan safest and most effective method of treating material. Cleans objects by such methods as sprinkling crumbled art gum or draft powder over surface and rotating soft cloth over cleaning agent to absorb soil (dry cleaning), immersing objects in circulating bath of water or mild chemical solution (wet cleaning), or applying solvent to remove rust, fly specks, mildew, or other stains, basing choice of method on knowledge of physical and chemical structure of objects and effects of various kinds of treatment. Preserves or directs preservation of objects by such methods as immersing paper in deacidification baths to remove acidity from papers and ink to prevent deterioration, sealing documents or other papers in cellulose cases and passing sealed objects through heated rollers to laminate them, spraying objects, storage containers, or areas with fungicides, insecticides, or pesticides, and controlling temperature, humidity, and exposure to natural or artificial light in areas where objects are displayed or stored. Restores objects to original appearance by such methods as immersing papers in mild bleach solution to brighten faded backgrounds, removing old varnish from such art works as engravings and mezzotints, or strengthening papers by resizing in bath of gelatin solution. Repairs objects by such methods as mending tears with adhesive and tissue, patching and filling worm holes, torn corners, or large tears by chamfering, inserting, affixing, and staining paper of similar weight and weave to simulate original appearance, or retouching stained, faded, or blurred watercolors, prints, or documents, using colors and strokes to reproduce those of original artist or writer.
GOE: 01.06.03 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 86

109.364-010 CRAFT DEMONSTRATOR (museums)
Demonstrates and explains techniques and purposes of handicraft or other activity, such as candle dipping, horseshoeing, or soap making, as part of display in history or folk museum, or restored or refurbished farm, village, or neighborhood: Studies historical and technical literature to acquire information about time period and lifestyle depicted in display and craft techniques associated with time and area, to devise plan for authentic presentation of craft. Drafts outline of talk, assisted by research personnel, to acquaint visitors with customs and crafts associated with folk life depicted. Practices techniques involved in handicraft to ensure accurate and skillful demonstrations. Molds candles, shoes horses, operates looms, or engages in other crafts or activities, working in appropriate period setting, to demonstrate craft to visitors. Explains techniques of craft, and points out relationship of craft to lifestyle depicted to assist visitors to comprehend traditional techniques of work and play peculiar to time and area. Answers visitor questions or refers visitor to other sources for information.
GOE: 09.01.02 STRENGTH: L GED: R4 M2 L4 SVP: 4 DLU: 86

109.367-010 MUSEUM ATTENDANT (museums)
Conducts operation of museum and provides information about regulations, facilities, and exhibits to visitors: Opens museum at designated hours, greets visitors, and invites visitors to sign guest register. Monitors visitors viewing exhibits, cautions persons not complying with museum regulations, distributes promotional materials, and answers questions concerning exhibits, regulations, and facilities. Arranges tours of facility for schools or other groups, and schedules volunteers or other staff members to conduct tours. Examines exhibit facilities and collection objects periodically and notifies museum professional personnel or governing body when need for repair or replacement is observed.
GOE: 07.04.04 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 86

11 OCCUPATIONS IN LAW AND JURISPRUDENCE

This division includes occupations concerned with the application of principles relating to statute law and its administration.

110 LAWYERS

This group includes occupations concerned with the practice of one or more phases of law. Includes representing individuals, organizations, or government; and the preparation of legal documents.

110.107-010 LAWYER (profess. & kin.) alternate titles: advocate; attorney; counselor; counselor-at-law
Conducts criminal and civil lawsuits, draws up legal documents, advises clients as to legal rights, and practices other phases of law: Gathers evidence in divorce, civil, criminal, and other cases to formulate defense or to initiate legal action. Conducts research, interviews clients, and witnesses and handles other details in preparation for trial. Prepares legal briefs, develops strategy, arguments and testimony in preparation for presentation of case. Files brief with court clerk. Represents client in court, and before quasi-judicial or administrative agencies of government. Interprets laws, rulings, and regulations for individuals and businesses. May confer with colleagues with specialty in area of lawsuit to establish and verify basis for legal proceedings. May act as trustee, guardian, or executor. May draft wills, trusts, transfer of assets, gifts and other documents. May advise corporate clients concerning transactions of business involving internal affairs, stockholders, directors, officers and corporate relations with general public. May supervise and coordinate activities of subordinate legal personnel. May prepare business contracts, pay taxes, settle labor disputes, and administer other legal matters. May teach college courses in law. May specialize in specific phase of law.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 87

110.107-014 LAWYER, CRIMINAL (profess. & kin.)
Specializes in law cases dealing with offenses against society or state, such as theft, murder, and arson: Interviews clients and witnesses to ascertain facts of case. Correlates findings and prepares case. Prosecutes, or defends defendant against charges. Conducts case, examining and cross examining witnesses. Summarizes case to jury.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-010 DISTRICT ATTORNEY (government ser.) alternate titles: prosecuting attorney; prosecutor; solicitor, city or state; state's attorney; united states attorney
Conducts prosecution in court proceedings in behalf of city, county, state, or federal government: Gathers and analyzes evidence in case and reviews pertinent decisions, policies, regulations, and other legal matters pertaining to case. Presents evidence against accused to grand jury for indictment or release of accused. Appears against accused in court of law and presents evidence before JUDGE (government ser.) or other judiciary and jury.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-014 INSURANCE ATTORNEY (insurance) alternate titles: claim attorney; insurance counsel
Advises management of insurance company on legality of insurance transactions: Studies court decisions, and recommends changes in wording of insurance policies to conform with law or to protect company from unwarranted claims. Advises claims department personnel of legality of claims filed on company to ensure against undue payments. Advises personnel engaged in drawing up of legal documents, such as insurance contracts and release papers. May specialize in one phase of legal work, such as claims or contracts.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-018 LAWYER, ADMIRALTY (profess. & kin.)
Specializes in law applicable to matters occurring on inland navigable waters or on high seas: Conducts lawsuits in matters involving ship personnel, collisions, matters of cargo, and damage to objects by vessels. Draws legal documents, including charter parties, applications for registry of vessels under flags of a particular country, and bills of sale for vessels. Determines law applicable by study of the Constitution, statutes, previous decisions, and regulations. Advises clients as to advisability of prosecuting and defending law suits, or as to legal rights and obligations in other matters.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-022 LAWYER, CORPORATION (profess. & kin.) alternate titles: business and financial counsel; corporate counsel
Advises corporation concerning legal rights, obligations, and privileges: Studies Constitution, statutes, decisions, and ordinances of quasi-judicial bodies. Examines legal data to determine advisability of defending or prosecuting lawsuit. May act as agent of corporation in various transactions.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-026 LAWYER, PATENT (profess. & kin.) alternate titles: patent attorney; solicitor, patent
Specializes in patent law: Advises clients, such as inventors, investors, and manufacturers, concerning patentability of inventions, infringement of patents, validity of patents, and similar items. Prepares applications for patents and presents applications to U.S. Patent Office. Prosecutes or defends clients in patent infringement litigations. May specialize in protecting American trademarks and copyrights in foreign countries.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-030 LAWYER, PROBATE (profess. & kin.)
Specializes in settlement and planning of estates: Drafts wills, deeds of trusts, and similar documents to carry out estate planning of clients. Probates wills and represents and advises executors and administrators of estates.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-034 LAWYER, REAL ESTATE (profess. & kin.)
Specializes in sale and transfer of real property: Institutes title search to establish ownership. Draws up documents, such as deeds, mortgages, and leases. May act as trustee of property and hold funds for investment or issuance. May act as agent in real estate transactions.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L5 SVP: 8 DLU: 77

110.117-038 TAX ATTORNEY (profess. & kin.) alternate titles: tax agent; tax representative
Advises individuals, business concerns, and other organizations concerning income, estate, gift, excise, property, and other federal, state, local, and foreign taxes. Prepares opinions on tax liability resulting from prospective and past transactions. Represents clients in tax litigation.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

110.117-042 TITLE ATTORNEY (profess. & kin.) alternate titles: title examiner
Examines abstracts of titles, leases, contracts, and other legal documents to determine ownership of land, and gas, oil, and mineral rights: Draws up legal documents covering purchase and sale of land, and oil, gas, and mineral rights, drafts deeds and affidavits, and presents other evidence to meet legal requirements of documents. Examines instruments and opinions prepared by other attorneys and advises officials of organization as to legal requirements in connec-

tion with titles. Searches for and examines public records and writes opinions on titles. Prepares cases for trial and tries or assists in trial of lawsuits involving titles to land, and gas, oil, and mineral rights.
GOE: 11.04.02 STRENGTH: L GED: R6 M4 L6 SVP: 8 DLU: 90

110.167-010 BAR EXAMINER (profess. & kin.) alternate titles: law examiner

Determines qualifications of candidates seeking admission to practice of law. Prepares written examinations dealing with law subjects, such as contracts, property, and criminal law based on legal code of examining jurisdiction. Corrects and marks papers. Announces names of candidates earning passing grades. Submits each candidate to oral examination concerning qualifications. Recommends candidates meeting prescribed standards be admitted to practice.
GOE: 11.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 8 DLU: 77

111 JUDGES

This group includes occupations concerned with presiding as arbitrator, advisor, and administrator of the judicial system in a court of law.

111.107-010 JUDGE (government ser.) alternate titles: justice

Arbitrates disputes, advises counsel, jury, litigants, or court personnel, and administers judicial system: Establishes rules of procedure on questions for which standard procedures have not been established by law or by superior court. Reads or listens to allegations made by plaintiff in civil suits to determine their sufficiency. Examines evidence in criminal cases to determine if evidence will support charges. Listens to presentation of case, rules on admissibility of evidence and methods of conducting testimony, and settles disputes between opposing attorneys. Instructs jury on applicable law and directs jury to deduce facts from evidence presented. Sentences defendant in criminal cases, on conviction by jury, according to statutes of state or federal government, or awards judicial relief to litigants in civil cases in relation to findings by jury or by court. May be designated according to level of court in judicial hierarchy as Appellate-Court Judge (government ser.); District-Court Judge (government ser.); Municipal-Court Judge (government ser.); Superior-Court Judge (government ser.); Supreme-Court Justice (government ser.). May preside over particular court department and be designated Conciliation-Court Judge (government ser.); Criminal-Court Judge (government ser.); Juvenile-Court Judge (government ser.); Probate Judge (government ser.).
GOE: 11.04.01 STRENGTH: S GED: R6 M4 L6 SVP: 9 DLU: 77

111.107-014 MAGISTRATE (government ser.) alternate titles: justice-court judge; justice of the peace; police judge; police justice; police magistrate

Adjudicates civil cases in which damages do not exceed prescribed maximum established by state law, and minor misdemeanor cases not involving penitentiary sentences or fines in excess of maximum amount allowed to be levied under state law. Conducts preliminary hearings in felony cases to determine whether there is reasonable and probable cause to hold defendant for further proceedings or trial by superior court. May perform wedding ceremonies. May perform duties at night and be designated Night-Court Magistrate (government ser.). May adjudicate cases involving motor vehicle laws and be designated Traffic-Court Magistrate (government ser.).
GOE: 11.04.01 STRENGTH: S GED: R6 M4 L6 SVP: 9 DLU: 77

119 OCCUPATIONS IN LAW AND JURISPRUDENCE, N.E.C.

This group includes occupations, not elsewhere classified, concerned with aw and jurisprudence.

119.107-010 HEARING OFFICER (government ser.) alternate titles: appeals board referee; referee

Reviews previously adjudicated social welfare tax or eligibility issues, as nember of appeals board, utilizing knowledge of regulations, policy, and precelent decisions: Researches laws, regulations, policies, and precedent decisions o prepare for appeal hearings. Schedules hearing, issues subpoenas, counsels arties, and administers oaths to prepare for formal hearing. Conducts hearing o obtain information and evidence relative to disposition of appeal. Questions vitnesses and rules on exceptions, motions, and admissibility of evidence. Anayzes evidence and applicable law, regulations, policy, and precedent decisions determine appropriate and permissible conclusions. Prepares written decision. lay hear disability insurance appeals and be designated Disability-Insurance-learing Officer (government ser.). May hear unemployment insurance appeals nd be designated Unemployment-Insurance-Hearing Officer (government ser.).
OE: 11.04.01 STRENGTH: S GED: R6 M5 L6 SVP: 9 DLU: 77

19.117-010 APPEALS REVIEWER, VETERAN (government ser.)

Adjudicates military service veterans' claims for allowances: Conducts hearngs and determines validity of claim in accordance with federal and state laws nd precedents. Renders decision and writes opinion on questions appealed. repares interpretations and advisory opinions on points of law requested by ate or federal agencies engaged in administration of veterans' programs. onducts studies of appeals procedures in field agencies to ensure adherence legal requirements and facilitate determination of cases.
OE: 11.04.01 STRENGTH: S GED: R6 M5 L5 SVP: 9 DLU: 77

119.167-010 ADJUDICATOR (government ser.)

Adjudicates claims filed by government against individuals or organizations: Determines existence and amount of liability, according to law, administrative and judicial precedents and other evidence. Recommends acceptance or rejection of compromise settlement offers.
GOE: 11.04.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

119.167-014 PATENT AGENT (profess. & kin.)

Prepares and presents patent application to U.S. Patent Office and in patent courts, according to familiarity with patent law and filing procedures. Must be registered by U.S. Patent Office. Cannot practice law or appear in other courts.
GOE: 11.04.04 STRENGTH: S GED: R6 M5 L6 SVP: 7 DLU: 77

119.167-018 TITLE SUPERVISOR (profess. & kin.)

Directs and coordinates activities of subordinates engaged in searching public records and examining titles to determine legal condition of property title.
GOE: 07.01.05 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

119.267-010 ABSTRACTOR (profess. & kin.) alternate titles: abstract clerk; abstract maker; abstract searcher; abstract writer; court abstractor; title abstractor

Analyzes pertinent legal or insurance details or section of statute or case law to summarize for purposes of examination, proof, or ready reference. May search out titles to determine if title deed is correct [TITLE EXAMINER (profess. & kin.)].
GOE: 11.04.04 STRENGTH: S GED: R5 M3 L5 SVP: 6 DLU: 77

119.267-014 APPEALS REFEREE (government ser.)

Adjudicates social welfare tax or benefit eligibility issues filed by disabled or unemployed claimants or employers: Arranges and conducts hearings to discover pertinent facts bearing on claim in accord with federal and state laws and procedures. Renders decisions affirming or denying previous ruling, based on testimony, claim records, applicable provisions of law, and established precedents. Writes decision explaining ruling and informs interested parties of results. Confers with personnel of employer or agency involved to obtain additional information bearing on appeal, and to clarify future implications of decisions. May participate in court proceedings against claimants attempting to obtain benefits through fraud. May render informal opinions on points of law in questionable cases to facilitate initial determination of benefit eligibility or imposition of penalties. May be required to hold law degree or license to practice law.
GOE: 11.04.01 STRENGTH: S GED: R6 M3 L6 SVP: 8 DLU: 77

119.267-018 CONTRACT CLERK (profess. & kin.) alternate titles: contract consultant; contract technician

Reviews agreements or proposed agreements for conformity to company rates, rules, and regulations: Analyzes contracts and confers with various department heads to detect ambiguities, inaccurate statements, omissions of essential terms, and conflicts with possible legal prohibitions. Recommends modifications. Converts agreements into contract form or prepares amended agreement for approval by legal department. May initiate changes in standard form contracts.
GOE: 07.01.05 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

119.267-022 LEGAL INVESTIGATOR (profess. & kin.) alternate titles: legal assistant

Researches and prepares cases relating to administrative appeals of civil service members: Examines state government, personnel, college, or university rules and regulations. Answers members' questions regarding rights and benefits and advises on how rules apply to individual situations. Presents arguments and evidence to support appeal at appeal hearing. Calls upon witnesses to testify at hearing.
GOE: 11.04.02 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

119.267-026 PARALEGAL (profess. & kin.) alternate titles: law clerk; legal aid; legal assistant

Researches law, investigates facts, and prepares documents to assist LAWYER (profess. & kin.) 110.107-010: Researches and analyzes law sources such as statutes, recorded judicial decisions, legal articles, treaties, constitutions, and legal codes to prepare legal documents, such as briefs, pleadings, appeals, wills, contracts, initial and amended articles of incorporation, stock certificates and other securities, buy-sell agreements, closing papers and binders, deeds, and trust instruments for review, approval, and use by attorney. Appraises and inventories real and personal property for estate planning. Investigates facts and law of case to determine causes of action and to prepare case accordingly. Files pleadings with court clerk. Prepares affidavits of documents and maintains document file. Delivers or directs delivery of subpoenas to witnesses and parties to action. May direct and coordinate activities of law office employees. May prepare office accounts and tax returns. May specialize in litigation, probate, real estate, or corporation law. May prepare real estate closing statement and assist in closing process. May act as arbitrator and liaison between disputing parties. May act as law librarian, keeping and monitoring legal volumes and ensuring legal volumes are up-to-date. May search patent files to ascertain originality of patent application and be designated Patent Clerk (government ser.).
GOE: 11.04.02 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 87

119.287-010 TITLE EXAMINER (profess. & kin.)

Searches public records and examines titles to determine legal condition of property title: Examines copies of records, such as mortgages, liens, judgments,

easements, vital statistics, and plat and map books to determine ownership and legal restrictions and to verify legal description of property. Copies or summarizes (abstracts) recorded documents, such as mortgages, trust deeds, and contracts affecting condition of title to property. Analyzes restrictions and prepares report outlining restrictions and actions required to clear title. When working in title insurance company, prepares and issues policy that guarantees legality of title.
GOE: 07.01.05 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

119.367-010 ESCROW OFFICER (profess. & kin.)
Holds in escrow, funds, legal papers, and other collateral posted by contracting parties to ensure fulfillment of contracts or trust agreements: Prepares escrow agreement. Executes terms of contract or trust agreement, such as holding money or legal papers, paying off mortgages, or paying sums to designated parties. Files and delivers deeds and other legal papers. May assist buyer to secure financing.
GOE: 07.01.04 STRENGTH: S GED: R4 M3 L3 SVP: 8 DLU: 77

12 OCCUPATIONS IN RELIGION AND THEOLOGY

This division includes occupations concerned with religious worship and observance, and with theological research and history of religion.

120 CLERGY

This group includes occupations concerned with serving spiritual needs of congregation members, usually as minister, priest, or rabbi. Includes delivering sermons, conducting services, administering religious rites, instructing prospective congregation members, and counseling members in need of spiritual advice.

120.107-010 CLERGY MEMBER (profess. & kin.) alternate titles: minister; preacher; priest; rabbi
Conducts religious worship and performs other spiritual functions associated with beliefs and practices of religious faith or denomination as authorized, and provides spiritual and moral guidance and assistance to members: Leads congregation in worship services. Prepares and delivers sermons and other talks. Interprets doctrine of religion. Instructs people who seek conversion to faith. Conducts wedding and funeral services. Administers religious rites or ordinances. Visits sick and shut-ins, and helps poor. Counsels those in spiritual need and comforts bereaved. Oversees religious education programs. May write articles for publication and engage in interfaith, community, civic, educational, and recreational activities sponsored by or related to interest of denomination. May teach in seminaries and universities. May serve in armed forces, institutions, or industry and be designated Chaplain (profess. & kin.). When in charge of Christian church, congregation, or parish, may be designated Pastor (profess. & kin.) or Rector (profess. & kin.). May carry religious message and medical or educational aid to nonchristian lands and people to obtain converts and establish native church and be designated Missionary (profess. & kin.).
GOE: 10.01.01 STRENGTH: L GED: R6 M4 L6 SVP: 8 DLU: 77

129 OCCUPATIONS IN RELIGION AND THEOLOGY, N.E.C.

This group includes occupations, not elsewhere classified, concerned with religion and theology.

129.027-010 CANTOR (profess. & kin.)
Chants and reads portions of ritual during religious services, and directs congregants in musical activities: Arranges musical portion of religious services in consultation with leader of congregation. Chants or recites religious texts during worship services or other observances and trains and leads congregants in musical responses. May create variations of traditional music or compose music for services. May train and direct choir or teach vocal music to youth or other groups of congregants.
GOE: 11.07.03 STRENGTH: L GED: R5 M1 L4 SVP: 8 DLU: 86

129.107-010 CHRISTIAN SCIENCE NURSE (profess. & kin.)
Provides support and nonmedical physical care, through practical knowledge of Christian Science, to patients receiving treatment from CHRISTIAN SCIENCE PRACTITIONERS (profess. & kin.). May work on staff of Christian Science sanatorium or Christian Science visiting nurse service. May contract independently, usually with one patient, to provide individual care in Christian Science sanatorium or private home.
GOE: 10.03.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

129.107-014 CHRISTIAN SCIENCE PRACTITIONER (profess. & kin.)
Practices spiritual healing through prayer alone in accordance with religious teaching of Christian Science.
GOE: 10.01.01 STRENGTH: S GED: R5 M2 L3 SVP: 6 DLU: 77

129.107-018 DIRECTOR OF RELIGIOUS ACTIVITIES (education) alternate titles: dean of chapel; director of religious life
Directs and coordinates activities of various denominational groups to meet religious needs of students: Meets with religious advisers and councils to coordinate overall religious program. Assists and advises groups in promoting interfaith understanding. Interprets policies of university to community religious workers and confers with administrative officials concerning suggestions and requests for religious activities. Provides counseling and guidance relative to marital, health, financial, and religious problems. Plans and conducts conferences and courses to assist in interpretation of religion to various academic groups and to promote understanding of individual faiths and convictions of other groups.
GOE: 10.01.01 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

129.107-022 DIRECTOR, RELIGIOUS EDUCATION (nonprofit org.)
Plans, organizes, and directs religious education program designed to promote religious education among congregation membership and counsels members concerning personal problems: Analyzes revenue and program cost data to determine budget priorities. Analyzes member participation, and changes in congregation emphasis to determine needs for religious education. Develops study courses and supervises instructional staff. Counsels students. Plans congregational activities and projects to attract attention to, and encourage active participation in programs. Promotes student participation in extracurricular congregational activities. Visits homes of congregation members and confers with CLERGY MEMBER (profess. & kin.) 120.107-010, congregation officials, and congregation organizations to solicit support and participation, and to stimulate interest in religious and educational programs. Participates in such denominational activities as giving help to new congregations and small congregations. Interprets work of school to public through speaking or discussion-leading in related fields, and contributes articles to local and national publications. Orders and distributes school supplies.
GOE: 11.07.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

129.107-026 PASTORAL ASSISTANT (nonprofit org.)
Assists ordained clergy in conducting worship services; provides spiritual guidance to church members, and plans and arranges educational, social, and recreational programs for congregation: Assists CLERGY MEMBER (profess. & kin.) 120.107-010 in conducting worship, wedding, funeral, and other services and in coordinating activities of lay participants, such as organist, choir, and ushers. Visits church members in hospitals and convalescent facilities or at home to offer spiritual guidance and assistance, such as emergency financial aid or referral to community support services. Assists CLERGY MEMBER (profess. & kin.) and lay teachers in selecting books and reference materials for religious education classes and in adapting content to meet needs of different age groups. May write and deliver sermons. May teach history and doctrine of church to church members. May assist CLERGY MEMBER (profess. & kin.) in coordinating committees that oversee social and recreational programs.
GOE: 10.01.01 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 86

129.271-010 MOHEL (profess. & kin.) alternate titles: ritual circumciser
Circumcises Jewish male infants in accordance with tenets of faith: Reviews infant's family medical history to determine possibility of hemorrhage. Examines infant for infection and other conditions to determine best operational time and procedure. Disinfects surgical instruments, hands, and operative area. Affixes lyre-shaped shield to penis and excises foreskin and membrane along line of shield, using scalpel. Removes blood from wound, using suction, and applies sterile dressing. Recites prescribed benedictions and announces Hebrew name of child.
GOE: 10.01.01 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

13 OCCUPATIONS IN WRITING

This division includes occupations concerned with reporting, editing, promoting, and interpreting ideas and facts in written form. Occupations concerned with translating and interpreting written and spoken words from one language to another are also included in this division.

131 WRITERS

This group includes occupations primarily concerned with researching and writing material for performance, publication, or broadcast. Includes reporting, analyzing, and interpreting facts, events, and personalities; developing fiction or nonfiction ideas, using various literary techniques to produce plays, novels, poems, or other related works; critically evaluating art, music, drama, and other artistic presentations; and persuading the general public to favor personalities, goods, and services. Writers often rewrite material developed by others and perform editorial duties but are distinguished from editors because they are primarily responsible for originating written material. Technical writers are also included in this group. Occupations which include writing but are primarily involved with other disciplines, such as economics, psychology, and history, are grouped according to primary involvement.

131.067-010 COLUMNIST/COMMENTATOR (print. & pub.; radio-tv broad.)
Analyzes news and writes column or commentary, based on personal knowledge and experience with subject matter, for publication or broadcast: Gathers information and develops subject perspective through research, interview, experience, and attendance at functions, such as political conventions, news meetings, sports events, and social activities. Analyzes and interprets information to formulate and outline story idea. Selects material most pertinent to presentation, organizes material into acceptable media form and format, and writes column

or commentary. Records commentary or presents commentary live when working in broadcast medium. May be required to develop material to fit media time or space requirements. May analyze current news items and be designated News Analyst (radio-tv broad.). May be designated according to medium worked in as Columnist (print. & pub.); Commentator (radio-tv broad.). May specialize in particular field, such as sports, fashion, society, or politics. May analyze topics chosen by publication or broadcast facility editorial board. May enter information into computer to prepare commentaries.
GOE: 11.08.03 STRENGTH: S GED: R6 M3 L6 SVP: 7 DLU: 88

131.067-014 COPY WRITER (profess. & kin.)
Writes advertising copy for use by publication or broadcast media to promote sale of goods and services. Consults with sales media, and marketing representatives to obtain information on product or service and discuss style and length of advertising copy. Obtains additional background and current development information through research and interview. Reviews advertising trends, consumer surveys, and other data regarding marketing of specific and related goods and services to formulate presentation approach. Writes preliminary draft of copy and sends to supervisor for approval. Corrects and revises copy as necessary. May write articles, bulletins, sales letters, speeches, and other related informative and promotional material. May enter information into computer to prepare advertising copy.
GOE: 01.01.02 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 89

131.067-018 CRITIC (print. & pub.; radio-tv broad.)
Writes critical reviews of literary, musical, or artistic works and performances for broadcast and publication: Attends art exhibitions, musical or dramatic performances, reads books, or previews motion picture or television presentations. Analyzes factors such as theme, expression, and technique, and makes comparisons to other works and standards. Forms critical opinions based on personal knowledge, judgement, and experience. Organizes material to emphasize prominent features, and writes review. Presents oral review in live or recorded form when working in broadcasting medium. May enter information into computer to prepare reviews. May be designated according to field of specialization as Art Critic (print. & pub.; radio-tv broad.); Book Critic (print. & pub.; radio-tv broad.); Drama Critic (print. & pub.; radio-tv broad.); Movie Critic (print. & pub.; radio-tv broad.); Music Critic (print. & pub.; radio-tv broad.).
GOE: 01.01.03 STRENGTH: S GED: R6 M2 L6 SVP: 8 DLU: 88

131.067-022 EDITORIAL WRITER (print. & pub.)
Writes comments on topics of reader interest to stimulate or mold public opinion, in accordance with viewpoints and policies of publication: Prepares assigned or unassigned articles from knowledge of topic and editorial position of publication, supplemented by additional study and research. Submits and discusses copy with editor for approval. May specialize in one or more fields, such as international affairs, fiscal matters, or national or local politics. May participate in conferences of editorial policy committee to recommend topics and position to be taken by publication on specific public issues.
GOE: 01.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

131.067-026 HUMORIST (profess. & kin.)
Writes humorous material for publication or performance: Selects topic according to personal preference or assignment. Writes and makes changes and revisions to material until it meets personal standards. Submits material for approval and confers with client regarding additional changes or revisions. May conduct research to obtain factual information regarding subject matter. May specialize in writing comedy routines, gags, or special material for entertainers and be designated Gag Writer (profess. & kin.). May write comedy shows for presentation on radio or television and be designated Comedy Writer (profess. & kin.). May work as a member of writing team and be assigned to develop segment of comedy show.
GOE: 01.01.02 STRENGTH: S GED: R6 M2 L6 SVP: 8 DLU: 77

131.067-030 LIBRETTIST (profess. & kin.)
Composes text for opera, musical play, or extended choral work, fitting words to music composed by another. Adapts text to accommodate musical requirements of COMPOSER (profess. & kin.) and SINGER (amuse. & rec.; motion picture; radio-tv broad.).
GOE: 01.01.02 STRENGTH: S GED: R6 M2 L6 SVP: 7 DLU: 77

131.067-034 LYRICIST (profess. & kin.) alternate titles: lyric writer; song writer
Writes words to be sung or spoken to accompaniment of music. Expresses sentiment, ideas, or narration, usually in verse, to fit music.
GOE: 01.01.02 STRENGTH: S GED: R6 M2 L6 SVP: 7 DLU: 77

131.067-038 PLAYWRIGHT (profess. & kin.) alternate titles: dramatist
Writes original plays, such as tragedies, comedies, or dramas, or adapts themes from fictional, historical, or narrative sources, for dramatic presentation: Writes plays, usually involving action, conflict, purpose, and resolution, to depict series of events from imaginary or real life. Writes dialogue and describes action to be followed during enactment of play. Revises script during rehearsals and preparation for initial showing.
GOE: 01.01.02 STRENGTH: S GED: R6 M2 L6 SVP: 8 DLU: 77

131.067-042 POET (profess. & kin.)
Writes narrative, dramatic, or lyric poetry for magazines, books, and other publications: Chooses subject matter and suitable form to express personal feeling and individual experience, or to narrate story or event. May write doggerel or other type verse.
GOE: 01.01.02 STRENGTH: S GED: R6 M2 L6 SVP: 7 DLU: 77

131.067-046 WRITER, PROSE, FICTION AND NONFICTION (profess. & kin.) alternate titles: writer
Writes original prose material for publication: Selects subject matter based on personal interest or receives specific assignment from publisher. Conducts research and makes notes to retain ideas, develop factual information, and obtain authentic detail. Organizes material and plans arrangement or outline. Develops factors, such as theme, plot, order, characterization, and story line. Writes draft of manuscript. Reviews, revises, and corrects it and submits material for publication. Confers with publisher's representative regarding manuscript changes. May specialize in one or more styles or types of writing, such as descriptive or critical interpretations or analyses, essays, magazine articles, short stories, novels, and biographies.
GOE: 01.01.02 STRENGTH: S GED: R6 M3 L6 SVP: 8 DLU: 77

131.067-050 SCREEN WRITER (motion picture; radio-tv broad.) alternate titles: scenario writer; script writer
Writes scripts for motion pictures or television: Selects subject and theme for script based on personal interests or assignment. Conducts research to obtain accurate factual background information and authentic detail. Writes plot outline, narrative synopsis, or treatment and submits for approval. Confers with PRODUCER (motion picture) 187.167-174 or PRODUCER (radio-tv broad.) 159.117-010 and DIRECTOR, MOTION PICTURE (motion picture) 159.067-010 or DIRECTOR, TELEVISION (radio-tv broad.) 159.067-014 regarding script development, revisions, and other changes. Writes one or more drafts of script. May work in collaboration with other writers. May adapt books or plays into scripts for use in television or motion picture production. May write continuity or comedy routines. May specialize in particular type of script or writing.
GOE: 01.01.02 STRENGTH: S GED: R6 M2 L6 SVP: 7 DLU: 77

131.087-010 CONTINUITY WRITER (radio-tv broad.)
Originates and prepares material that is read by ANNOUNCER (radio-tv broad.) 159.147-010 to introduce and connect various parts of musical, news, and sports programs.
GOE: 01.01.02 STRENGTH: S GED: R5 M2 L5 SVP: 7 DLU: 77

131.087-014 READER (motion picture; radio-tv broad.) alternate titles: script reader; story analyst
Reads novels, stories, and plays and prepares synopses for review by editorial department or PRODUCER (motion picture) or PRODUCER (radio-tv broad.). Suggests possible treatment of selected materials. May read foreign story material in original language.
GOE: 01.01.01 STRENGTH: S GED: R5 M2 L5 SVP: 6 DLU: 77

131.262-010 NEWSCASTER (radio-tv broad.) alternate titles: newsperson
Analyzes and broadcasts news received from various sources: Examines news items of local, national, and international significance to determine selection or is assigned news items for broadcast by editorial staff. Prepares or assists in preparation of script [NEWSWRITER (print. & pub.; radio-tv broad.) 131.262-014]. Presents news over radio or television. May specialize in particular field of news broadcasting, such as political, economic, or military. May gather information about newsworthy events [REPORTER (print. & pub.; radio-tv broad.) 131.262-018]. May introduce broadcasters who specialize in particular fields, such as sports or weather, and be designated Anchorperson (radio-tv broad.) or News Anchor (radio-tv broad.).
GOE: 11.08.03 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 89

131.262-014 NEWSWRITER (print. & pub.; radio-tv broad.) alternate titles: rewriter
Writes news stories for publication or broadcast from written or recorded notes supplied by reporting staff, using computer or typewriter: Reviews and evaluates written or recorded notes obtained from reporting staff to isolate pertinent facts and details. Verifies accuracy of questionable facts and obtains supplemental material and additional details from files, reference libraries, and interviews with knowledgeable sources. Organizes material and writes story conforming to specified length, style, and format requirements. May discuss story length and format with EDITOR, CITY (print. & pub.) 132.037-014 or with PRODUCER (radio-tv broad.) 159.117-010 and FILM OR VIDEOTAPE EDITOR (motion picture; radio-tv broad.) 962.262-010. May write news stories in foreign language.
GOE: 11.08.02 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 89

131.262-018 REPORTER (print. & pub.; radio-tv broad.) alternate titles: newsperson
Collects and analyzes information about newsworthy events to write news stories for publication or broadcast: Receives assignment or evaluates news leads and news tips to develop story idea. Gathers and verifies factual information regarding story through interview, observation, and research. Organizes material, determines slant or emphasis, and writes story according to prescribed editorial style and format standards. May monitor police and fire department radio communications to obtain story leads. May take photographs or shoot video to illustrate stories. May edit, or assist in editing, videos for broadcast. May appear on television program when conducing taped or filmed interviews or narration. May give live reports from site of event or mobile broadcast unit.

May transmit information to NEWSWRITER (print. & pub.; radio-tv broad.) 131.262-014 for story writing. May specialize in one type of reporting, such as sports, fires, accidents, political affairs, court trials, or police activities. May be assigned to outlying areas or foreign countries and be designated Correspondent (print. & pub.; radio-tv broad.) or Foreign Correspondent (print. & pub.; radio-tv broad.).
GOE: 11.08.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 89

131.267-022 SCRIPT READER (radio-tv broad.) alternate titles: copy reader; editor
Reads book or script of radio and television programs and commercials or views and listens to video and sound tapes to detect and recommend deletion of vulgar, immoral, libelous, or misleading statements, applying knowledge of FCC and station standards and regulations: Types recommended editorial revisions in script. Confers with sales or advertising agency personnel to report on revised or disallowed commercials. When reading continuity, may be designated Continuity Reader (radio-tv broad.).
GOE: 07.05.02 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

131.267-026 WRITER, TECHNICAL PUBLICATIONS (profess. & kin.)
Develops, writes, and edits material for reports, manuals, briefs, proposals, instruction books, catalogs, and related technical and administrative publications concerned with work methods and procedures, and installation, operation, and maintenance of machinery and other equipment: Receives assignment from supervisor. Observes production, developmental, and experimental activities to determine operating procedure and detail. Interviews production and engineering personnel and reads journals, reports, and other material to become familiar with product technologies and production methods. Reviews manufacturer's and trade catalogs, drawings and other data relative to operation, maintenance, and service of equipment. Studies blueprints, sketches, drawings, parts lists, specifications, mock ups, and product samples to integrate and delineate technology, operating procedure, and production sequence and detail. Organizes material and completes writing assignment according to set standards regarding order, clarity, conciseness, style, and terminology. Reviews published materials and recommends revisions or changes in scope, format, content, and methods of reproduction and binding. May maintain records and files of work and revisions. May select photographs, drawings, sketches, diagrams, and charts to illustrate material. May assist in laying out material for publication. May arrange for typing, duplication, and distribution of material. May write speeches, articles, and public or employee relations releases. May edit, standardize, or make changes to material prepared by other writers or plant personnel and be designated Standard-Practice Analyst (profess. & kin.). May specialize in writing material regarding work methods and procedures and be designated Process-Description Writer (profess. & kin.).
GOE: 11.08.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 81

132 EDITORS: PUBLICATION, BROADCAST, AND SCRIPT

This group includes occupations concerned with assigning, selecting, and preparing written materials for publication, broadcast, or motion picture production. This includes planning arrangement of material, rewriting, verifying, compiling, and abstracting according to standards of consistency, organization, development or specified viewpoint. Editors coordinate the work of authors, designers, production personnel, and printers. Editors of specialized types of written material are also included.

132.017-010 EDITOR, MANAGING, NEWSPAPER (print. & pub.) alternate titles: managing editor
Negotiates with newspaper owner's representative to establish publication policies, and directs editorial activities of newspaper departments: Confers with executive staff to discuss editorial policy, makeup plans, changes in staff organization, news coverage of special events, and similar decisions. Relays information to department heads. Coordinates work of editorial departments in accordance with newspaper policy. Directs general page makeup of publication. Inspects final makeup of editions and rearranges makeup to meet emergency news situations. Originates plans for special features or projects and assigns department heads to implement them. May write leading or policy editorials. In smaller establishments may perform duties of EDITOR, NEWS (print. & pub.) 132.067-026; and EDITOR, CITY (print. & pub.) 132.037-014.
GOE: 11.05.01 STRENGTH: S GED: R6 M3 L6 SVP: 8 DLU: 77

132.017-014 EDITOR, NEWSPAPER (print. & pub.) alternate titles: editor-in-chief, newspaper
Formulates editorial policy and directs operation of newspaper: Confers with editorial policy committee and heads of production, advertising, and circulation departments to develop editorial and operating procedures and negotiate decisions affecting publication. Appoints editorial heads and supervises work of their departments in accordance with newspaper policy. Writes leading or policy editorials or notifies editorial department head of position to be taken on specific public issues. Reviews financial reports and takes appropriate action with respect to costs and revenues. Represents publication at professional and community functions. In smaller establishments may perform duties of one or more subordinate editors and direct activities of advertising, circulation, or production personnel.
GOE: 11.08.01 STRENGTH: S GED: R6 M3 L6 SVP: 9 DLU: 77

132.017-018 EDITOR, TECHNICAL AND SCIENTIFIC PUBLICATIONS (profess. & kin.) alternate titles: manager, technical and scientific publications; supervisor, publications
Directs and coordinates activities of writers engaged in preparing technical, scientific, medical, or other material for publication in conjunction with or independent from manufacturing, research, and related activities: Analyzes developments in specific field to determine need for revisions, corrections, and changes in previously published materials, and development of new material. Confers with customer representatives, vendors, plant executives, or publisher to establish technical specifications, determine specific or general subject material to be developed for publication, and resolve problems concerned with developing and publishing subject material. Assigns staff writer or contracts with specialist in subject area to produce draft of manuscript. Supervises staff writers and delineates standard procedures for gathering data and writing. Reviews draft of manuscript and makes recommendations for changes. May edit and correct final draft to prepare for typesetting. May perform similar duties to those supervised. May select or recommend graphics, such as drawings, diagrams, pictures, and charts to illustrate manuscript. May specialize in particular type of publication, such as manuals, handbooks, articles, or proposals.
GOE: 11.08.01 STRENGTH: S GED: R6 M3 L6 SVP: 9 DLU: 77

132.037-010 CONTINUITY DIRECTOR (radio-tv broad.) alternate titles: editor, continuity and script
Coordinates activities of continuity department of radio or television station: Assigns duties to staff and freelance writers. Supervises staff writers preparing program continuity and scripts for broadcasting, and edits material to ensure conformance with company policy, laws, and regulations. May be responsible for nonmusical copyright material. May read book or script of television programs and commercials or view and listen to videotapes to detect and recommend deletion of vulgar, immoral, libelous, or misleading statements, applying knowledge of Federal Communications Commission and station standards and regulations. May supervise administrative research workers and employees receiving and examining program ideas and scripts suggested by public for station or network presentation.
GOE: 01.01.01 STRENGTH: S GED: R5 M2 L5 SVP: 8 DLU: 88

132.037-014 EDITOR, CITY (print. & pub.) alternate titles: city editor; metropolitan editor
Directs and supervises personnel engaged in selecting, gathering, and editing local news and news photographs for edition of newspaper: Receives information regarding developing news events or originates story ideas and assigns coverage to members of reporting and photography staff. Reviews news copy and confers with executive staff members regarding allocation of news space. Sends copy to copy desk for editing. Reviews edited copy and sends to EDITOR, NEWS (print. & pub.) or composing room. May write or direct writing of headlines. May hire and discharge members of reporting staff. May perform other editorial duties as required. Designated State Editor (print. & pub.) when working with State news and National Editor (print. & pub.) when working with National news.
GOE: 11.08.01 STRENGTH: S GED: R6 M3 L6 SVP: 8 DLU: 77

132.037-018 EDITOR, DEPARTMENT (print. & pub.)
Supervises personnel engaged in selecting, gathering, and editing news and news photographs for one or more specialized news departments of newspaper: May select submitted material such as letters or articles for publication. May assign cartoons or editorials to staff members. May perform duties of REPORTER (print. & pub.; radio-tv broad.). May edit copy and perform related duties as required. Usually identified according to individual specialty or specialties.
GOE: 11.08.01 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

132.037-022 EDITOR, PUBLICATIONS (print. & pub.)
Formulates policy; plans, coordinates, and directs editorial activities; and supervises workers who assist in selecting and preparing material for publication in magazines, trade journals, house organs, and related publications: Confers with executives, department heads, and editorial staff to formulate policy, coordinate department activities, establish production schedules, solve publication problems, and discuss makeup plans and organizational changes. Determines theme of issue and gathers related material. Writes or assigns staff members or freelance writers to write articles, reports, editorials, reviews, and other material. Reads and evaluates material submitted for publication consideration. Secures graphic material from picture sources and assigns artists and photographers to produce pictures and illustrations. Assigns staff member, or personally interviews individuals and attends gatherings, to obtain items for publication, verify facts, and clarify information. Assigns research and other editorial duties to assistants. Organizes material, plans overall and individual page layouts, and selects type. Marks dummy pages to indicate position and size of printed and graphic material. Reviews final proofs and approves or makes changes. Reviews and evaluates work of staff members and makes recommendations and changes. May perform related editorial duties listed under EDITORIAL ASSISTANT (print. & pub.). May direct activities of production, circulation, or promotion personnel. May prepare news or public relations releases, special brochures, and similar materials. May be designated according to type of publication worked on as Communications Manager (print. & pub.); Editor, Farm Journal (print. & pub.); Editor, House Organ (print. & pub.); Editor, Magazine (print. & pub.); Editor, Trade Journal (print. & pub.); Industrial Editor (print. & pub.).

OE: 01.01.01 STRENGTH: S GED: R6 M3 L6 SVP: 8 DLU: 77

32.037-026 STORY EDITOR (motion picture; radio-tv broad.)
Selects and secures written material and supervises staff writers who prepare cripts to be used for television or motion picture productions. Reviews and caluates writers' work developed during previous associations, samples preented by agents, and material received from other sources to select writers and ubject material compatible with established styles, concepts, and formats. Recmmends purchase of material judged to be suitable in developing scripts. Coners with production head regarding selection of writers and material. Hires, asgns, and supervises writers who prepare scripts for production. Reviews writs' work and gives instruction and direction regarding changes, additions, and orrections. Rewrites, combines, and polishes draft scripts, as necessary, to preare scripts for production. Reads stories and other material obtained from varous sources and evaluates potential for development into scripts. May assign aff members to write synopses, treatments, adaptations, scripts, and continuity hen working on motion pictures.
OE: 01.01.01 STRENGTH: S GED: R6 M2 L6 SVP: 8 DLU: 77

32.067-010 BUREAU CHIEF (print. & pub.)
Directs and coordinates activities of personnel engaged in selecting, gatherng, and editing news and news pictures in remote location or foreign country nd transmitting to home office of newspaper or press syndicate. May translate ispatches into English or cable language. May perform duties of REPORTER print. & pub.; radio-tv broad.).
OE: 11.08.01 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

32.067-014 EDITOR, BOOK (print. & pub.)
Secures, selects, and coordinates publication of manuscripts in book form. Reviews submitted manuscript, determines demand based on consumer trends nd personal knowledge, and makes recommendations regarding procurement nd revision. Confers with author and publisher to arrange purchase and details, uch as publication date, royalties, and number of copies to be printed. Coordiates design and production activities. May assign and supervise editorial staff. May contract design and production or personally design and produce book.
OE: 01.01.01 STRENGTH: S GED: R6 M3 L6 SVP: 8 DLU: 77

32.067-018 EDITOR, DICTIONARY (profess. & kin.) alternate titles: lexicographer
Researches information about words that make up language and writes and eviews definitions for publication in dictionary. Conducts or directs research o discover origin, spelling, syllabication, pronunciation, meaning, and usage of ords. Organizes research material and writes dictionary definition. May study r conduct surveys to determine factors, such as frequency of use for a specific ord, or word use by particular segment of population in order to select words or inclusion in dictionary. May perform related editorial duties. May select rawings or other graphic material to illustrate word meaning. May specialize n particular type of dictionary, such as medical, electronic, or industrial.
OE: 11.08.01 STRENGTH: S GED: R6 M3 L6 SVP: 8 DLU: 77

32.067-022 EDITOR, GREETING CARD (print. & pub.)
Selects and edits original sentiments for use on greeting cards. Reads mateal submitted by freelance and staff writers and determines suitability based on nowledge of market trends, company standards, and personal tastes. Edits maerial to meet greeting card requirements. Maintains file of sentiments for future se. May write greeting card verses. May supervise writing staff. May design ards. May coordinate activities of art, photographic, and printing staff.
OE: 01.01.01 STRENGTH: S GED: R5 M2 L5 SVP: 6 DLU: 77

32.067-026 EDITOR, NEWS (print. & pub.) alternate titles: makeup editor
Plans layout of newspaper edition. Receives news copy, photographs, and ummy page layouts marked to indicate columns occupied by advertising. Coners with management and editorial staff members regarding placement of developing news stories. Determines placement of stories based on relative signficance, available space, and knowledge of layout principles. Marks layout heets to indicate position of each story and accompanying photographs. Approves proofs submitted by composing room. May write or revise headlines. May edit copy. May perform related editorial duties as required.
OE: 11.08.01 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

32.067-030 PROGRAM PROPOSALS COORDINATOR (radio-tv broad.) alternate titles: coordinator, program planning
Develops, writes, and edits proposals for new radio or television programs. eviews program proposals submitted by staff, station and independent producs, and other sources to determine proposal feasibility, based on knowledge of ation's programming needs, policy and budgetary considerations, and potential nderwriting (funding) sources. Edits proposals, or writes proposals for original rogram concepts, and submits proposals for review of programming, financial, nd other departmental personnel. Participates in selection of researchers, conultants, producers, and on-air personalities to facilitate development of program ideas. Authorizes preparation of budget for final proposals. Maintains liaion between program production department and proposal originators to inform riginators of status of accepted projects.
OE: 11.05.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 86

32.132-010 ASSIGNMENT EDITOR (radio-tv broad.) alternate titles: managing editor
Supervises and coordinates activities of radio or television news gathering aff. Maintains contact with outside news agencies, police and fire departments, and other news sources to obtain information regarding developing news items. Determines priority and assigns coverage to news units. Originates or approves ideas for news features. Confers with DIRECTOR, NEWS (radio-tv broad.) 184.167-014 and department heads to coordinate production activities. Reads and edits news copy to ensure that slanderous, libelous, and profane statements are avoided or deleted. Prepares rundown of news stories and assignment sheets, using computer. Communicates with reporters on assignments, using two-way radio. May direct or participate in writing and editing activities.
GOE: 11.08.01 STRENGTH: S GED: R5 M2 L5 SVP: 8 DLU: 89

132.267-010 EDITOR, TELEGRAPH (print. & pub.; radio-tv broad.) alternate titles: editor, wire
Selects and edits state, national, and international news items received by wire from press associations. Corrects errors of spelling and punctuation in telegraph copy. Deletes less important paragraphs, according to importance and amount of space available for story. Issues selected items to EDITOR, NEWS (print. & pub.), with notations of desired length of story in accordance with predetermined space allotment. Monitors teleprinter machines for new leads on important news items received before press time of edition, and reserves space for copy on such items. May select news of local events of national or international interest, and prepare copy to be forwarded to central news associations by wire. May rewrite stories to include information of special interest to subscribers of publication.
GOE: 11.08.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

132.267-014 EDITORIAL ASSISTANT (print. & pub.) alternate titles: assistant editor; associate editor
Prepares written material for publication, performing any combination of following duties: Reads copy to detect errors in spelling, punctuation, and syntax. Verifies facts, dates, and statistics, using standard reference sources. Rewrites or modifies copy to conform to publication's style and editorial policy and marks copy for typesetter, using standard symbols to indicate how type should be set. Reads galley and page proofs to detect errors and indicates corrections, using standard proofreading symbols. May confer with authors regarding changes made to manuscript. May select and crop photographs and illustrative materials to conform to space and subject matter requirements. May prepare page layouts to position and space articles and illustrations. May write or rewrite headlines, captions, columns, articles, and stories according to publication requirements. May initiate or reply to correspondence regarding material published or being considered for publication. May read and evaluate submitted manuscripts and be designated Manuscript Reader (print. & pub.). May be designated according to type of publication worked on as Copy Reader (print. & pub.) when working on newspaper; Copy Reader, Book (print. & pub.) when working on books.
GOE: 11.08.01 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

132.367-010 EDITOR, INDEX (print. & pub.) alternate titles: indexer
Prepares indices for books and other publications. Reads material to determine which items should be in index. Arranges topical or alphabetical list of index items, according to page or chapter, indicating location of item in text. Classifies items of topical interest, and inserts cross references in index to refer reader to related subjects appearing elsewhere in text. Directs activities of clerical staff engaged in typing index, filing subject-cards, and performing related duties. May prepare related items, such as glossaries, bibliographies, and explanatory footnotes, following literary style of manuscript author.
GOE: 11.08.01 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

137 INTERPRETERS AND TRANSLATORS

This group includes occupations concerned with translating spoken or written words from one language into another, and translating spoken language into sign language.

137.137-010 DIRECTOR, TRANSLATION (profess. & kin.)
Directs and coordinates activities of INTERPRETERS (profess. & kin.) and TRANSLATORS (profess. & kin.) engaged in translating spoken passages, documents, and other material from one language to another for business establishments, government agencies, and academic institutions. Studies material, using knowledge of language and linguistics, to determine best qualified personnel for specific projects. Assigns projects to personnel and reviews work for quality. Attends meetings of groups and organizations engaged in international relations to promote translation service. Prepares budget for department and determines allocation of funds. Interviews and selects personnel for staff positions.
GOE: 11.08.04 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

137.267-010 INTERPRETER (profess. & kin.)
Translates spoken passages from one language into another. Provides consecutive or simultaneous translation between languages. In consecutive interpreting listens to complete statements in one language, translates to second, and translates responses from second into first language. Expresses either approximate or exact translation, depending on nature of occasion. In simultaneous interpreting renders oral translation of material at time it is being spoken, usually hearing material over electronic audio system and broadcasting translation to listeners. Usually receives briefing on subject discussed prior to interpreting session. May be designated according to language or languages interpreted. May specialize in specific subject area.
GOE: 11.08.04 STRENGTH: S GED: R5 M2 L5 SVP: 6 DLU: 77

137.267-014 INTERPRETER, DEAF (profess. & kin.) alternate titles: translator, deaf

Provides translation between spoken and manual (sign language) communication: Translates spoken material into sign language for understanding of deaf. Interprets sign language of deaf into oral or written language for hearing individuals or others not conversant in sign language. May translate television news and other broadcasts for deaf viewers.
GOE: 01.03.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

137.267-018 TRANSLATOR (profess. & kin.)

Translates documents and other material from one language to another: Reads material and rewrites material in specified language or languages, following established rules pertaining to factors, such as word meanings, sentence structure, grammar, punctuation, and mechanics. May specialize in particular type of material, such as news, legal documents, or scientific reports and be designated accordingly. May be identified according to language translated. May represent or spell characters of another alphabet and be designated Transliterator (profess. & kin.).
GOE: 11.08.04 STRENGTH: S GED: R6 M3 L6 SVP: 7 DLU: 77

139 OCCUPATIONS IN WRITING, N.E.C.

This group includes occupations, not elsewhere classified, concerned with writing.

139.087-010 CROSSWORD-PUZZLE MAKER (print. & pub.)

Devises and creates crossword puzzles: Draws form setting up numbered blank squares for insertion of words and black squares to complete design. Fits words, whose spelling coincides vertically and horizontally, into blank areas and composes short definitions numbered correspondingly with matching series of blank squares. Sets up filled puzzle as key to solution. May originate puzzles for specific purposes, such as advertisements or holiday specialities.
GOE: 01.01.02 STRENGTH: S GED: R5 M2 L5 SVP: 6 DLU: 77

139.167-010 PROGRAM COORDINATOR (amuse. & rec.)

Coordinates activities of amusement park educational department to present educational scripts during animal performances: Reviews educational materials to gather information for scripts. Confers with animal trainer to verify format of performance, and writes script to coincide with performance, or reviews scripts prepared by department researchers for suggested changes in format. Prepares brochures containing information, such as time of performances, theme of performances, and map of park facilities. Reads reservation log to determine information, such as name of visiting groups, size of groups, and time of arrival. Greets visitors, passes out brochures, answers questions, and escorts visitors to site of performance. May introduce trainer to audience and present memorized script during performance over speaker system and be designated Narrator (amuse. & rec.).
GOE: 01.03.03 STRENGTH: L GED: R4 M2 L4 SVP: 8 DLU: 86

14 OCCUPATIONS IN ART

This division includes occupations concerned with integrating personal expression, knowledge of subject matter, and art concepts, techniques, and processes to develop ideas and create environments, products, and art works which elicit an emotional or esthetic response. Occupations concerned with teaching are included in Groups 091, 092, and 097. Occupations in performing arts are included in Groups 150, 151, and 152. Occupations in art museums are included in Group 102.

141 COMMERCIAL ARTISTS: DESIGNERS AND ILLUSTRATORS, GRAPHIC ARTS

This group includes occupations concerned with designing and executing artwork to promote public consumption of materials, products, or services; influence others in their opinions of individuals or organizations; or illustrate and adorn subject matter. Includes preparing animated cartoons.

141.031-010 ART DIRECTOR (profess. & kin.)

Formulates concepts and supervises workers engaged in executing layout designs for art work and copy to be presented by visual communications media, such as magazines, books, newspapers, television, posters, and packaging: Reviews illustrative material and confers with client or individual responsible for presentation regarding budget, background information, objectives, presentation approaches, styles, techniques, and related production factors. Formulates basic layout design concept and conducts research to select and secure suitable illustrative material, or conceives and assigns production of material and detail to artists and photographers. Assigns and directs staff members to develop design concepts into art layouts and prepare layouts for printing. Reviews, approves, and presents final layouts to client or department head for approval. May perform duties of GRAPHIC DESIGNER (profess. & kin.) to design art layouts. May mark up, paste up, and finish layouts to prepare layouts for printing. May draw illustrations. May prepare detailed story board showing sequence and timing of story development when producing material for television. May specialize in particular field, media, or type of layout.
GOE: 01.02.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

141.051-010 COLOR EXPERT (profess. & kin.) alternate titles: color consultant; colorist; color specialist

Advises clients relative to fashionable shades and color combinations in paper, paint, draperies, floor coverings, and other permanent installations for furnishing interiors of homes, offices, and other commercial establishments.
GOE: 01.02.03 STRENGTH: L GED: R5 M2 L4 SVP: 7 DLU: 77

141.061-010 CARTOONIST (print. & pub.)

Draws cartoons for publications to amuse readers and interpret or illustrate news highlights, advertising, stories, or articles: Develops personal ideas or reads written material to develop ideas from context. Discusses ideas with editor or publisher's representative or sketches cartoon drawing and submits drawing for approval. Makes changes and corrections as necessary and finishes drawing. May develop and draw comic strips. May be designated according to type of cartoons drawn as Editorial Cartoonist (print. & pub.); Sports Cartoonist (print. & pub.).
GOE: 01.02.03 STRENGTH: S GED: R5 M2 L4 SVP: 7 DLU: 77

141.061-014 FASHION ARTIST (retail trade)

Draws or paints apparel and accessory illustrations for newspaper or related advertisements: Positions garment, accessory, or model to accentuate desired sales features. Renders drawing of garment or accessory, complementary articles, and background, using various art media and materials. May use models, props, and settings to accentuate subject materials. May draw lettering.
GOE: 01.02.03 STRENGTH: S GED: R5 M2 L4 SVP: 7 DLU: 77

141.061-018 GRAPHIC DESIGNER (profess. & kin.) alternate titles: layout artist

Designs art and copy layouts for material to be presented by visual communications media such as books, magazines, newspapers, television, and packaging: Studies illustrations and photographs to plan presentation of material, product, or service. Determines size and arrangement of illustrative material and copy, selects style and size of type, and arranges layout based upon available space, knowledge of layout principles, and esthetic design concepts. Draws sample of finished layout and presents sample to ART DIRECTOR (profess. & kin.) 141.031-010 for approval. Prepares notes and instructions for workers who assemble and prepare final layouts for printing. Reviews final layout and suggests improvements as needed. May prepare illustrations or rough sketches of material according to instructions of client or supervisor. May prepare series of drawings to illustrate sequence and timing of story development for television production. May mark up, paste, and assemble final layouts to prepare layouts for printer. May specialize in particular field, medium, or type of layout. May produce still and animated graphic formats for on-air and taped portions of television news broadcasts, using electronic video equipment. May photograph layouts, using camera, to make layout prints for supervisor or client. May develop negatives and prints, using negative and print developing equipment, tools and work aids to produce layout photographs for client or supervisor. May key information into computer equipment to create layouts for client or supervisor.
GOE: 01.02.03 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 89

141.061-022 ILLUSTRATOR (profess. & kin.) alternate titles: artist; commercial artist; graphic artist

Draws or paints illustrations for use by various media to explain or adorn printed or spoken word: Studies layouts, sketches of proposed illustrations, and related materials to become familiar with assignment. Determines style, technique, and medium best suited to produce desired effects and conform with reproduction requirements, or receives specific instructions regarding these variables. Formulates concept and renders illustration and detail from models, sketches, memory, and imagination. Discusses illustration at various stages of completion and makes changes as necessary. May select type, draw lettering, lay out material, or perform related duties. May be identified according to specific style, technique, medium, subject material or combination of variables. May draw or paint graphic material and lettering to be used for title, background, screen advertising, commercial logo, and other visual layouts for motion picture production and television programming and be designated Title Artist (motion picture; radio-tv broad.).
GOE: 01.02.03 STRENGTH: S GED: R5 M2 L4 SVP: 7 DLU: 77

141.061-026 ILLUSTRATOR, MEDICAL AND SCIENTIFIC (profess. & kin.) alternate titles: artist, scientific

Creates illustrations, graphics, and three dimensional models to demonstrate medical or biological subjects, using variety of artistic techniques: Develops drawings, paintings, diagrams, and models of medical or biological subjects in fields such as anatomy, physiology, histology, pathology, or in surgical procedures, for use in publications, exhibits, consultations, research, and teaching activities. Completes illustrations in pen and ink, oil, monochromatic wash, watercolor, carbon dust, and mixed media. Constructs or advises in construction of models in plaster, wax, plastics, and other materials. Devises visual aids, such as films, video tapes, charts, and computer graphics, to assist in teaching and research programs.
GOE: 01.02.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 89

141.061-030 ILLUSTRATOR, SET (motion picture; radio-tv broad.) alternate titles: sketch maker

Plans, develops, and prepares illustrations of scenes and backgrounds against which action is filmed for use in motion picture or television production: Reads script, reviews working drawings, conducts research and consults with ART DI-

ECTOR (motion picture; radio-tv broad.) to develop illustration ideas. Per- ms duties of ILLUSTRATOR (profess. & kin.) to render illustrations.
OE: 01.02.03 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

41.061-034 POLICE ARTIST (government ser.) alternate titles: forensic artist
Sketches likenesses of criminal suspects, according to descriptions of victims al witnesses, and prepares schematic drawings depicting scenes of crimes. nterviews crime victims and witnesses to obtain descriptive information con- erning physical build, sex, nationality, facial features, and related characteris- cs of unidentified suspect. Prepares series of simple line drawings conforming description of suspect and presents drawings to informant for selection of etch that most resembles suspect. Questions informant to obtain additional de- riptive information and draws and verifies details of features to improve re- mblance of conception to recollection of informant. Measures distances and etches layout of crime scene, or develops sketches from photographs and easurements taken at scene of crime by other police personnel to prepare hematic drawing of scene of crime.
OE: 01.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 86

41.061-038 COMMERCIAL DESIGNER (profess. & kin.)
Creates and designs graphic material for use as ornamentation, illustration, dvertising, or cosmetic on manufactured materials and packaging. Receives as- gnment from customer or supervisor. Studies traditional, period, and contem- orary design styles and motifs to obtain perspective. Reviews marketing trends d preferences of target and related markets. Integrates findings with personal terests, knowledge of design, and limitations presented by methods and mate- als. Creates, draws, modifies, and changes design to achieve desired effect. onfers with customer or supervisor regarding approval or desired changes to esign. May be required to have specialized knowledge of material designed. lay prepare original artwork and design model. May perform related duties, ch as fabricating silk screens, drawing full size patterns, or cutting stencils. lay work with specific items, such as signs, packaging, wallpaper, ceramics, le, glassware, monograms, crests, emblems, or embroidery. See INDUSTRIAL ESIGNER (profess. & kin.) 142.061-026 for workers who design both product orm and associated graphic materials.
OE: 01.02.03 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 81

41.067-010 CREATIVE DIRECTOR (profess. & kin.)
Develops basic presentation approaches and directs layout design and copy riting for promotional material, such as books, magazines, newspapers, tele- sion, posters, and packaging. Reviews materials and information presented by ient and discusses various production factors to determine most desirable resentation concept. Confers with heads of art, copy writing, and production epartments to discuss client requirements and scheduling, outline basic presen- ation concepts, and coordinate creative activities. Reviews and approves art d copy materials developed by staff and presents final layouts to client for pproval.
OE: 01.02.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

41.081-010 CARTOONIST, MOTION PICTURES (motion picture; radio-tv broad.) alternate titles: animated-cartoon artist; animator
Draws animated cartoons for use in motion pictures or television. Renders eries of sequential drawings of characters or other subject material which when hotographed and projected at specific speed becomes animated. May label ach section with designated colors when colors are used. May create and pre- are sketches and model drawings of characters. May prepare successive draw- gs to portray wind, rain, fire, and similar effects and be designated Cartoonist, pecial Effects (motion picture; radio-tv broad.). May develop color patterns d moods and paint background layouts to dramatize action for animated car- on scenes and be designated Cartoon-Background Artist (motion picture; adio-tv broad.).
OE: 01.02.03 STRENGTH: S GED: R5 M2 L4 SVP: 7 DLU: 77

41.137-010 PRODUCTION MANAGER, ADVERTISING (profess. & kin.)
Coordinates activities of design, illustration, photography, paste-up, and ty- graphy personnel to prepare advertisements for publication, and supervises orkers engaged in pasting-up advertising layouts in art department or studio. etermines arrangement of art work and photographs and selects style and size type, considering factors such as size of advertisement, design, layout, etches, and method of printing specified. Submits copy and typography in- ructions to printing firm or department for typesetting. Reviews proofs of inted copy for conformance to specifications. Assigns personnel to mount inted copy and illustration on final layouts, coordinating assignments with mpletion of art work to ensure that schedules are maintained. Writes instruc- ons for final margin widths and type sizes, and submits layout for printing. xamines layout proofs for quality of printing and conformance to layout.
OE: 01.02.03 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 86

42 ENVIRONMENTAL, PRODUCT, AND RELATED DESIGNERS

This group includes occupations concerned with designing or arranging ob- cts and materials to achieve aesthetically pleasing and functional effect for ap- rel, interiors, and other commercial items.

142.031-014 MANAGER, DISPLAY (retail trade)
Develops advertising displays for window or interior use and supervises and coordinates activities of workers engaged in laying out and assembling displays: Consults with advertising and sales officials to ascertain type of merchandise to be featured and time and place for each display. Develops layout and selects theme, colors, and props to be used. Oversees requisitioning and construction of decorative props from such materials as wood, plastics, paper, and glass. Plans lighting arrangement and selects coloring medium. May design store fixtures. May prepare sketches or floor plans of proposed displays. May develop merchandise displays at special exhibits, such as trade shows.
GOE: 01.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

142.051-010 DISPLAY DESIGNER (profess. & kin.) alternate titles: display and banner designer; flag decorator and designer
Designs displays, using paper, cloth, plastic, and other material to decorate streets, fairgrounds, buildings, and other places for celebrations, fairs, and special occasions: Confers with client regarding budget, theme, materials, colors, emblem styles, and related factors. Plans display and sketches rough design for client's approval. Selects stock decorations or directs construction according to design concepts. May construct decorations. May direct and supervise workers who put up decorations. May design, draw, paint, or sketch backgrounds and fixtures made of wood, cardboard, paper, plaster, canvas, or other material for use in windows or interior displays and be designated Display Artist (profess. & kin.). May specialize in designing outdoor displays and be designated Display Designer, Outside (profess. & kin.).
GOE: 01.02.03 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 77

142.051-014 INTERIOR DESIGNER (profess. & kin.)
Plans, designs, and furnishes interior environments of residential, commercial, and industrial buildings: Confers with client to determine architectural preferences, purpose and function of environment, budget, types of construction, equipment to be installed, and other factors which affect planning interior environments. Integrates findings with knowledge of interior design and formulates environmental plan to be practical, esthetic, and conducive to intended purposes, such as raising productivity, selling merchandise, or improving life style of occupants. Advises client on interior design factors, such as space planning, layout and utilization of furnishings and equipment, color schemes, and color coordination. Renders design ideas in form of paste ups, drawings, or illustrations, estimates material requirements and costs, and presents design to client for approval. Selects or designs and purchases furnishings, art works, and accessories. Subcontracts fabrication, installation, and arrangement of carpeting, fixtures, accessories, draperies, paint and wall coverings, art work, furniture, and related items. May plan and design interior environments for boats, planes, buses, trains, and other enclosed spaces. May specialize in particular field, style, or phase of interior design. May specialize in decorative aspects of interior design and be designated Interior Decorator (profess. & kin.).
GOE: 01.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 85

142.061-010 BANK-NOTE DESIGNER (government ser.)
Designs engraving plate for printing government securities, such as currency, stamps, and bonds, according to preliminary drawings and knowledge of engraving and printing techniques: Examines preliminary sketch of design from government agency desiring to issue new or modified design. Modifies design to conform with technical characteristics and limitations of reproduction, engraving, and printing equipment and to introduce design elements to discourage counterfeiting, using drawing instruments. Selects or suggests colored inks pleasing to eye, consistent with dignity of security and need to discourage counterfeiting. Confers with representatives of issuing agency to obtain design approval. May originate designs and design suggestions for securities.
GOE: 01.06.01 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

142.061-014 CLOTH DESIGNER (profess. & kin.) alternate titles: cloth pattern maker; pattern designer; textile stylist
Originates designs for fabrication of cloth, specifying weave pattern, color, and gauge of thread, to create new fabrics according to functional requirements and fashion preferences of consumers: Develops new ideas for fabrics, utilizing knowledge of textiles and fashion trends. Consults with technical and merchandising staff to obtain design ideas, and to estimate consumer acceptance of new types of fabrics. Sketches designs for patterns on graph paper, using water colors, brushes, pens, and rulers, or prepares written instructions to specify details, such as finish, color, and construction of fabric. Examines fabricated sample on loom and modifies design as required. May be designated according to product designed as Rug Designer (carpet & rug); Woven-Label Designer (narrow fabrics).
GOE: 01.02.03 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

142.061-018 FASHION DESIGNER (profess. & kin.) alternate titles: clothes designer
Designs men's, women's, and children's clothing and accessories: Analyzes fashion trends and predictions, confers with sales and management executives, compares leather, fabrics, and other apparel materials, and integrates findings with personal interests, tastes, and knowledge of design to create new designs for clothing, shoes, handbags, and other accessories. Sketches rough and detailed drawings of apparel and writes specifications describing factors, such as color scheme, construction, and type of material to be used. Confers with and coordinates activities of workers who draw and cut patterns and construct garments to fabricate sample garment. Examines sample garment on and off model

and modifies design as necessary to achieve desired effect. May draw pattern for article designed, using measuring and drawing instruments. May cut patterns. May construct sample, using sewing equipment. May arrange for showing of sample garments at sales meetings or fashion shows. May attend fashion and fabric shows to observe new fashions and materials. May be identified according to specific group designed for, such as men, women, or children or areas of specialization, such as sportswear, coats, dresses, suits, lingerie, or swimwear. May design custom garments for clients and be designated Custom Garment Designer (retail trade). May conduct research and design authentic period, country, or social class costumes to be worn by film, television, concert, stage, and other performers and be designated Costume Designer (profess. & kin.). May design, fabricate, repair, and sell leather articles and be designated Leather Crafter (leather prod.). May design, copy, or modify clothing accessories and be designated according to article designed as Handbag Designer (leather prod.); Hat Designer (hat & cap); or Shoe Designer (boot & shoe).
GOE: 01.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 78

142.061-022 FURNITURE DESIGNER (furniture)

Designs furniture for manufacture, according to knowledge of design trends, offerings of competition, production costs, capability of production facilities, and characteristics of company's market: Confers with production, design, and sales personnel to obtain design suggestions and customer orders. Evaluates orders and proposals to determine feasibility of producing item. Sketches freehand design of article. Obtains approval from customer, design committee, or authorized company officials, and originates scale or full size drawing, using drawing instruments. Prepares itemized production requirements to produce item. Traces drawing on material for use in production of blueprints, using drawing instruments. Prepares or directs preparation of blueprints containing manufacturing specifications, such as dimensions, kind of wood, and upholstery fabrics to be used in manufacturing article. Attends staff conference with plant personnel to explain and resolve production requirements. May design and prepare detailed drawings of jigs, fixtures, forms, or tools required to be used in production. May plan modifications for completed furniture to conform to changes in design trends and increase customer acceptance. May design custom pieces or styles according to specific period or country. May build or oversee construction of models or prototypes. May design fixtures and equipment, such as counters and display cases, and be designated Fixture Designer (furniture).
GOE: 01.02.03 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

142.061-026 INDUSTRIAL DESIGNER (profess. & kin.)

Originates and develops ideas to design the form of manufactured products: Reads publications, attends showings, and consults with engineering, marketing, production, and sales representatives to establish design concepts. Evaluates design ideas based on factors such as appealing appearance, design-function relationships, serviceability, materials and methods engineering, application, budget, price, production costs, methods of production, market characteristics, and client specifications. Integrates findings and concepts and sketches design ideas. Presents design to client or design committee and discusses need for modification and change. May design product packaging and graphics for advertising. May build simulated model, using hand and power tools and various materials. May prepare illustrations. May prepare or coordinate preparation of working drawings from sketches and design specifications. May design products for custom applications. May be required to have specialized product knowledge. Usually specializes in specific product or type of product including, but not limited to hardware, motor vehicle exteriors and interiors, scientific instruments, industrial equipment, luggage, jewelry, housewares, toys, or novelties and is designated accordingly.
GOE: 01.02.03 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

142.061-030 MEMORIAL DESIGNER (stonework)

Designs and builds plaster models of monuments, statues, and memorials: Interviews customer to obtain information regarding size, style, and motif of memorial. Draws sketches and detailed plans of memorial according to customer's suggestions. Casts plaster block and carves design in block, using chisels, mallets, knives, and files to form model of memorial. Routes finished model and work order specifications to STONE CARVER (stonework). May draw detailed sketches or plans of family burial plots. May build models of cemeteries used as displays.
GOE: 01.02.03 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 77

142.061-034 ORNAMENTAL-METALWORK DESIGNER (struct. metal) alternate titles: art-metal designer

Designs ornamental metal items, such as grills, lattice work, statuary, railings, displays, plaques, and light fixtures, and tooling for fabrication, utilizing knowledge of properties of metal, fabrication techniques, principles of design, and artistic talent: Analyzes sketches or observes and measures physical surroundings prior to installation. Selects designs from pattern book, alters or originates designs according to customer specifications. Draws detail sketches and prescribes fabricating techniques. Forges tools, such as peening hammers, bending jigs, and scroll forms, using forge, machine tools, welding equipment, and hand forming tools. May sculpture plastic patterns to form molding castings. Builds products from original design or working models [ORNAMENTAL-METAL WORKER (metal prod., nec)]. May prescribe colors for painted parts.
GOE: 01.02.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

142.061-038 SAFETY-CLOTHING-AND-EQUIPMENT DEVELOPER (profess. & kin.) alternate titles: protective-clothing-and-equipment specialist

Designs safety clothing and equipment to protect personnel against hazards, such as fire and toxic fumes: Consults with employers and technical personnel to determine safety problem involved. Designs clothing and equipment, such as suits, helmets, and gloves, incorporating such devices as mechanical breathing apparatus and communication systems to meet specific hazards. Drafts pattern of garment parts on pattern paper in full scale, using ruler, drawing instruments, and pattern blocks, and cuts material to make first pattern. Gives instructions to workers engaged in cutting material and assembling sample garment. May estimate cost of production.
GOE: 05.01.07 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

142.061-042 SET DECORATOR (motion picture; radio-tv broad.)

Selects decorations and coordinates activities of workers who decorate sets for motion picture or television production: Reads script to determine decoration requirements. Selects furniture, draperies, pictures, lamps, and rugs for decorative quality and appearance on film. Gives directions to GRIP (motion picture; radio-tv broad.) in placing items on set. Examines dressed sets to ensure props and scenery do not interfere with moovements of cast or view of camera.
GOE: 01.02.03 STRENGTH: S GED: R5 M2 L4 SVP: 8 DLU: 77

142.061-046 SET DESIGNER (motion picture; radio-tv broad.)

Designs motion picture or television production sets, signs, props, or scenic effects, and prepares scale drawings for use in construction, modification, or alteration: Confers with ART DIRECTOR (motion picture; radio-tv broad.) 142.061-062 and reviews illustrations to determine set requirements and discuss preliminary design ideas. Integrates requirements and concepts to conceive set design. Prepares rough draft and scale working drawings of set [DRAFTER (profess. & kin.) Master Title]. Presents drawings for approval and makes changes and corrections as directed. May design miniature motion picture or television production sets used in filming backgrounds, titles, and special effects and be designated Miniature Set Designer (motion picture; radio-tv broad.). May purchase construction materials and ready made props to ensure availability for use by freelance workers. May schedule times television production sets and props are to be used, and coordinate setup and storage of television production sets and props.
GOE: 01.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 88

142.061-050 SET DESIGNER (amuse. & rec.) alternate titles: scenic designer; theatrical-scenic designer

Designs sets for theatrical productions: Confers with play's director regarding interpretation and set requirements. Conducts research to determine appropriate architectural and furnishing styles. Integrates requirements, interpretation, research, design concepts, and practical considerations regarding factors, such as mobility, interchangeability, and budget to plan sets. Renders drawing or illustration of design concept, estimates costs, and presents drawing for approval. Prepares working drawings of floor plan, front elevation, scenery, and properties to be constructed. Prepares charts to indicate where items, such as curtains and borders are to be hung. Oversees building of sets, furniture, and properties. May build scale models from cardboard, plaster, or sponge. May design stage lighting to achieve dramatic or decorative effects.
GOE: 01.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 77

142.061-054 STAINED GLASS ARTIST (profess. & kin.)

Creates original stained glass designs and artwork, draws cartoons (full size working drawings), and prepares glass for fabrication into windows, art objects, and other decorative articles: Consults client regarding theme and subject to be portrayed. Studies style of building architecture and shape of windows to plan conforming design. Integrates knowledge of glass cutting, stresses, portraiture, symbolism, heraldry, ornamental styles, and related factors with functional requirements to conceptualize design idea. Renders illustration of design and detail, estimates costs, and presents to client for approval. Prepares full size, detailed color cartoon indicating size, shape, shading, and detail of individual glass pieces. Transfers cartoon into pattern, selects colored glass, and cuts glass according to pattern. Assembles cut pieces into design pattern and waxes pieces in place to secure glass for painting. Paints artwork and detail on glass, using artist's brushes and ground glass mixed with enamel, and copper or iron oxide. Stains back of glass pieces prior to or after firing. Fires glass to fuse and stabilize colors. May assemble, lead, and solder finished glass to fabricate designed article. May install finished window in window frame or door. May restore damaged or broken stained glass objects. May only design, paint, or draw cartoons.
GOE: 01.02.02 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

142.061-058 EXHIBIT DESIGNER (museums)

Plans, designs, and oversees construction and installation of permanent and temporary exhibits and displays: Confers with administrative, curatorial, and exhibit staff members to determine theme, content, interpretative or informational purpose, and planned location of exhibit, to discuss budget, promotion, and time limitations, and to plan production schedule for fabrication and installation of exhibit components. Prepares preliminary drawings of proposed exhibit, including detailed construction, layout, and special effect diagrams and material specifications, for final drawing rendition by other personnel, basing design and specifications on knowledge of artistic and technical concepts, principles, and techniques. Submits plan for approval, and adapts plan as needed to serve in-

nded purpose or to conform to budget or fabrication restrictions. Oversees
eparation of artwork and construction of exhibit components to ensure in-
nded interpretation of concepts and conformance to structural and material
ecifications. Arranges for acquisition of specimens or graphics or building of
hibit structures by outside contractors as needed to complete exhibit. Inspects
stalled exhibit for conformance to specifications and satisfactory operation of
ecial effects components. Oversees placement of collection objects or infor-
ational materials in exhibit framework.
OE: 01.02.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 86

2.061-062 ART DIRECTOR (motion picture; radio-tv broad.)
Formulates design concepts, selects locations and settings, and directs and
ordinates set design, construction, and erection activities to produce sets for
otion picture and television productions. Reads script and confers with heads
production and direction to establish budget, schedules, and determine setting
quirement. Conducts research and consults experts to establish architectural
les which accurately depict given periods and locations. Conducts search for
itable locations and constructed sets. Assigns assistants and staff members to
mplete design ideas and prepare sketches, illustrations, and detailed drawings
sets. Directs design and production of graphics or animation to produce
aphics or animation for on-air programs. Estimates construction costs and pre-
nts plans and estimates for approval. Directs and coordinates set construction,
ection, and decoration activities to ensure that they conform to design, budget,
d schedule requirements. Reviews budget and expenditures reports to monitor
sts. May make rough drawings of design concepts. May formulate design
ncepts for costumes, makeup, photographic effects, titles, and related produc-
n items.
OE: 01.02.03 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 89

2.081-010 FLORAL DESIGNER (retail trade) alternate titles: florist
Designs and fashions live, cut, dried, and artificial floral and foliar arrange-
ents for events, such as holidays, anniversaries, weddings, balls, and funerals.
onfers with client regarding price and type of arrangement desired. Plans ar-
ngement according to client's requirements and costs, utilizing knowledge of
sign and properties of materials, or selects appropriate standard design pat-
n. Selects flora and foliage necessary for arrangement. Trims material and
anges bouquets, sprays, wreaths, dish gardens, terrariums, and other items,
ng wire, pins, floral tape, foam, trimmers, cutters, shapers, and other mate-
ls and tools. May decorate buildings, halls, churches, or other facilities where
ents are planned. May pack and wrap completed arrangements. May estimate
sts and price arrangements. May conduct classes or demonstrations. May in-
uct and direct other workers. May arrange according to standard designs or
der instruction of designer and be designated Floral Arranger (retail trade).
E: 01.02.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

2.081-014 FUR DESIGNER (fur goods)
Designs or redesigns custom and commercial fur garments. Analyzes fashion
nds and predictions and confers with client or sales and management execu-
es regarding design ideas. Sketches design on paper to make or restyle gar-
nt, utilizing knowledge of various kinds of fur, techniques for handling fur,
l fashion trends. Obtains customer measurements, using tape measure. Draws
tern on paper according to customer measurements and cuts out pattern.
s pattern on canvas and cuts out material, using scissors. Sews together sec-
ns of canvas to form mockup of garment. Fits mockup on customer and
kes necessary alterations. Directs workers engaged in cutting and sewing
ment. Examines completed garments for defects. May estimate cost of
tyling or of making new garment.
E: 01.02.03 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

2.081-018 PACKAGE DESIGNER (profess. & kin.)
Designs containers for products, such as foods, beverages, toiletries, ciga-
es, and medicines. Confers with representatives of engineering, marketing,
nagement, and other departments to determine packaging requirements and
e of product market. Sketches design of container for specific product, con-
ering factors, such as convenience in handling and storing, distinctiveness for
ntification by consumer, and simplicity to minimize production costs. Ren-
s design, including exterior markings and labels, using paints and brushes.
pically fabricates model in paper, wood, glass, plastic, or metal, depending
material to be used in package. Makes changes or modifications required
approving authority.
E: 01.02.03 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 77

2.281-010 COPYIST (garment)
Gathers information on current trends in garment styling and sketches rep-
entations of competitors' garments, such as dresses, coats, and trousers. At-
ds garment fashion shows, concerts, and other public activities and reviews
ment magazines and manuals to obtain information concerning style trends,
sumer preferences, and price ranges. Sketches garments in pencil, crayon,
other medium to illustrate such details as garment style and type of fabric.
y design original garments, incorporating features of observed garments.
E: 01.02.03 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

3 OCCUPATIONS IN PHOTOGRAPHY

his group includes occupations concerned with photographing people,
nts, fictionalized scenes, materials, and products with still or motion-picture
eras. Includes conceiving artistic photographic effects and arranging and
paring subject matter.

143.062-010 DIRECTOR OF PHOTOGRAPHY (motion picture; radio-tv broad.) alternate titles: camera operator, first; camera operator, head; cinematographer

Plans, directs, and coordinates motion picture filming. Confers with DIRECTOR, MOTION PICTURE (motion picture) regarding interpretation of scene and desired effects. Observes set or location and reviews drawings and other information relating to natural or artificial conditions to determine filming and lighting requirements. Reads charts and computes ratios to determine required lighting, film, shutter angles, filter factors, camera distance, depth of field and focus, angles of view, and other variables to produce desired effects. Confers with ELECTRICIAN, CHIEF (motion picture) to establish lighting requirements. Selects cameras, accessories, equipment, and film stock, utilizing knowledge of filming techniques, filming requirements, and computations. Instructs camera operators regarding camera setup, angles, distances, movement, and other variables and signals cues for starting and stopping filming. Surveys set or location for potential problems, observes effects of lighting, measures lighting levels, and coordinates necessary changes prior to filming. Views film after processing and makes adjustments, as necessary, to achieve desired effects. May direct television productions which utilize electronic cameras. May specialize in special effects and be designated Director Of Photography, Special Effects (motion picture; radio-tv broad.).
GOE: 01.02.03 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

143.062-014 PHOTOGRAPHER, AERIAL (profess. & kin.)

Photographs segments of earth and other subject material from aircraft to produce pictures used in surveying, mapping, volumetric surveying, or related purposes, such as recording effects of pollution or natural disasters, determining condition of crops and timberland, and planning cities or other large scale projects. Sets up and mounts camera in aircraft. Confers with pilot regarding plotted course, speed, altitude, and area to be photographed. Communicates with pilot during flight to ensure adherence to flight plan or make adjustments to equipment to compensate for changes. Calculates number of exposures and time lapse between them, using standard formulas to determine requirements for adequate area coverage. Adjusts camera shutter speed, lens aperture opening, and focus. Adjusts automatic exposure interval on camera equipped with time lapse control or times intervals with stopwatch and manually trips shutter. Maintains camera in level position and oriented to flight path when making photographs for mapping or surveying. May match individual photographs to form terrain map of photographed area.
GOE: 01.06.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

143.062-018 PHOTOGRAPHER, APPRENTICE (profess. & kin.) alternate titles: commercial photographer apprentice; portrait photographer apprentice

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 01.02.03 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

143.062-022 CAMERA OPERATOR (motion picture; radio-tv broad.)

Photographs various subjects and subject material, using motion picture, television broadcasting, or video recording cameras and equipment, utilizing knowledge of motion picture, television broadcasting, or video recording techniques, limitations, and advantages to photograph scenes. Resolves problems presented by exposure control, subject and camera movement, changes in subject distance during filming, and related variables. May receive directives from PRODUCER (radio-tv broad.) 159.117-010 or DIRECTOR, TELEVISION (radio-tv broad.) 159.067-014 over headset. May set up and operate dollies, cranes, camera mounting heads, power zooms, and related motion picture, television broadcasting, or video recording equipment and accessories. May maintain or repair equipment and accessories. May specialize in particular subject material or field, such as medical, scientific, news, or commercial. May photograph action on motion picture or television sets and locations, using shoulder held camera, and be designated Camera Operator, Second (motion picture; radio-tv broad.) or photograph special effects and be designated Camera Operator, Special Effects (motion picture; radio-tv broad.). May specialize in operation of television cameras and be designated Camera Operator, Television (radio-tv broad.). May specialize in operation of motion picture cameras and be designated Photographer, Motion Picture (motion picture).
GOE: 01.02.03 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 88

143.062-026 PHOTOGRAPHER, SCIENTIFIC (profess. & kin.)

Photographs variety of subject material to illustrate or record scientific data or phenomena, utilizing knowledge of scientific procedures and photographic technology and techniques. Plans methods and procedures for photographing subject material and setup of equipment required, such as microscopes, telescopes, infrared or ultraviolet lighting, and X ray. Sets up and positions camera for photographing material or subject. Trips shutter to expose film. May prepare microscope slides. May make photographic copies of fragile documents and other material. May engage in research to develop new photographic procedures, methods, and materials. May process film and photographic paper to produce transparencies, prints, slides, and motion picture film. Usually specializes in specific field, such as chemistry, biology, medicine, metallurgy, physiology, astronomy, aerodynamics, ballistics, or engineering and is designated accordingly.
GOE: 02.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

143.062-030 PHOTOGRAPHER, STILL (profess. & kin.) alternate titles: commercial photographer

Photographs subjects, using still cameras, color or black-and-white film, and variety of photographic accessories. Selects and assembles equipment according

to subject material, anticipated conditions, and knowledge of function and limitations of various types of cameras, lenses, films, and accessories. Views subject and setting and plans composition, camera position, and camera angle to produce desired effect. Arranges subject material, poses subject, or maneuvers into position to take candid photo. Estimates or measures light level, using light meter or creates artificial lighting with flash units, lights, and lighting equipment. Adjusts lens aperture and shutter speed based on combination of factors, such as lighting, depth of field, subject motion, and film speed. Determines subject-to-lens distance, using tape measure, range finder, ground glass, or reflex viewing system to adjust focus. Positions camera and trips shutter to expose film. May calculate variables, such as exposure time, exposure interval, filter effect, and color temperature using tables, standard formulas, and mechanical or electronic measuring instruments. May make adjustments to camera, lens, or equipment to compensate for factors, such as distorted perspective and parallax. May design, build, arrange, or secure properties and settings to be used as background for subject material. May direct activities of other workers. May mix chemicals, process film and photographic paper, and make contact and enlarged prints. May spot and retouch prints and negatives. May conceive and plan photographic sequence for effective presentation. May specialize in particular type of photography, such as illustrative, fashion, architectural, or portrait. May be required to have detailed knowledge of use and characteristics of various types of film, including specialty films, such as infrared.
GOE: 01.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 88

143.062-034 PHOTOJOURNALIST (print. & pub.; radio-tv broad.) alternate titles: photographer, news

Photographs newsworthy events, locations, people, or other illustrative or educational material for use in publications or telecasts, using still cameras: Travels to assigned location and takes pictures. Develops negatives and prints film. Submits negatives and pictures to editorial personnel. Usually specializes in one phase of photography, as news, sports, special features, or as freelance photographer.
GOE: 01.02.03 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

143.260-010 OPTICAL-EFFECTS-CAMERA OPERATOR (motion picture)

Sets up and operates optical printers and related equipment to produce fades, dissolves, superimpositions, and other optical effects required in motion pictures, applying knowledge of optical effects printing and photography: Reads work order and count sheet to ascertain optical effects specifications and location of subject material on original photography film. Analyzes specifications to determine work procedures, sequence of operations, and machine setup, using knowledge of optical effects techniques and procedures. Loads camera of optical effects printer with magazine of unexposed film stock. Mounts original photography film in transport and masking mechanism of optical-printer projector and moves film into designated position for optical effect, using counter and film markings to determine placement. Adjusts camera position, lens position, mask opening, lens aperture, focus, shutter angle, film transport speed, and related controls, using precision measuring instruments and knowledge of optical effects techniques to determine settings. Selects designated color and neutral density filters and mounts in filter holder to control light and intensity. Sets controls in automatic or manual mode, moves control to start camera, and observes printer operation and footage counter during filming. Adjusts controls during filming operation when operating in manual mode, and stops camera when designated counter reading is observed. Moves controls to rewind camera film and original photography film and repeats select portions or entire operation number of times necessary to produce designated effect. Sets up and operates animation and matte cameras and related equipment to photograph artwork, such as titles and painted mattes. Sets up and operates single pass optical printers when enlarging or reducing film or performing related operations. Sets up and operates subtitle camera and related equipment to photograph film subtitles. Examines frames of film exposed with different combinations of color filters (wedges) to select optimum color balance based on experience and judgment.
GOE: 01.02.03 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

143.362-010 BIOLOGICAL PHOTOGRAPHER (profess. & kin.)

Photographs medical, biological, and allied phenomena to provide illustrations for scientific publications, records, and research and teaching activities: Makes still and motion picture reproductions of patients, anatomical structures, gross and microscopic specimens, plant and animal tissues, and physiological and pathological processes. Makes copies of x rays and similar materials, utilizing photographic techniques, such as time-lapse and ultraspeed pictures, and ultraviolet or infrared light to produce visible record of normally invisible phenomena. Processes photosensitive materials to make transparencies, lantern slides, photomontages, and color prints. Engages in research activities related to biological photography and presentation of scientific data. May design special equipment and processing formulas. May specialize in a particular technique, such as cinematography, color photography, or photomicrography. May specialize in a particular field, such as medicine, and be designated Medical Photographer (medical ser.).
GOE: 02.04.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

143.362-014 OPHTHALMIC PHOTOGRAPHER (medical ser.)

Photographs medical phenomena of eye to document diseases, surgeries, treatments, and congenital problems, to aid OPHTHALMOLOGIST (medical ser.) 070.101-058 in diagnosis and treatment of eye disorders: Focuses specialized microscope and cameras to take two- and three-dimensional photographs of external, anterior, and posterior segments of eye. Monitors patient's gaze through lens of microscope and camera to ensure that patient complies with instructions to obtain desired results. Selects filters to modify light. Injects contrast medium into vein of patient and photographs fluorescent dye as it flows through retina or iris vessels to obtain angiogram of eye. Develops exposed film, and mounts and labels slides for inclusion on patient's medical chart. May photograph eye to document research studies.
GOE: 02.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 89

143.382-010 CAMERA OPERATOR, ANIMATION (motion picture)

Operates special camera to make animated cartoon motion picture films: Places background drawing on horizontal easel over which camera is suspended. Positions transparent celluloid slide on which animation has been drawn over background and covers it with glass plate. Exposes frame of motion picture film and repeats process, using next drawing in animation sequence. Regulates exposure and aperture to obtain special effects, such as fade out or fade-ins.
GOE: 05.10.05 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

143.382-014 PHOTOGRAPHER, FINISH (amuse. & rec.) alternate titles: photo-finish photographer

Operates photographic equipment to photograph finish of horse race: Loads film into camera and advances to picture taking position. Sights camera on finish line and adjusts exposure controls and focus. Observes race and starts camera as horses approach finish line. Stops camera after last horse has crossed finish line. Removes exposed film from camera and places it into film-developing machine that automatically develops film. Prints and enlarges photographs used to determine winner of race when finish is close.
GOE: 05.10.05 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

143.457-010 PHOTOGRAPHER (amuse. & rec.)

Persuades nightclub and restaurant patrons to pose for pictures and operates camera to photograph them: Carries camera and flashbulb equipment to tables and solicits customers' patronage. Adjusts camera and photographs customers. Takes exposed film to darkroom on premises for immediate processing by DEVELOPER (photofinishing). Returns to customers with finished photographs or proofs and writes orders for additional prints selected. Receives payment for photographs. May use camera which produces instant picture.
GOE: 08.03.01 STRENGTH: L GED: R3 M1 L3 SVP: 3 DLU: 77

144 FINE ARTISTS: PAINTERS, SCULPTORS, AND RELATED OCCUPATIONS

This group includes occupations concerned with creating fine arts works whose primary purpose is to be viewed for esthetic content. The major factor distinguishing occupations in this group from those in commercial art is the retention of responsibility for selection of theme, subject matter, medium, and manner of execution.

144.061-010 PAINTER (profess. & kin.) alternate titles: artist

Paints variety of original subject material, such as landscapes, portraits, still lifes, and abstracts, using watercolors, oils, acrylics, tempera, or other paint medium: Conceives and develops ideas for painting, based on assignment, personality, interests, and knowledge of painting methods and techniques. Applies color medium to canvas or other surface, using brushes, pallet knives, and various other artist's tools and equipment. Integrates and develops visual elements, such as line, space, mass, color, and perspective to produce desired effect. May make preliminary sketch of painting. May coat finished painting with varnish or other preservative. May paint in particular style, such as realism, impressionism, naturalism, or regionalism. May specialize in particular media, or subject material. May teach painting [TEACHER, ART (education)]. May work in other art mediums, such as etching, drawing, or sculpture. May be identified according to specialization, style, media, technique, or subject matter. May paint scenic backgrounds, murals, portraiture, and other items for use on motion picture and television production sets and be designated Scenic Artist (motion picture; radio-tv broad.).
GOE: 01.02.02 STRENGTH: L GED: R5 M2 L4 SVP: 8 DLU: 77

144.061-014 PRINTMAKER (profess. & kin.)

Conceives and develops drawings and other art work and prepares printmaking medium used to print fine arts graphics: Determines printmaking method, such as recessed (intaglio), raised (relief), or flat (lithograph), which will be most effective to reproduce conceived art work. Renders art work on stone, metal, wood, linoleum, or other material, using various tools, procedures, and processes to etch, engrave, carve, paint, draw, or perform some similar operation, utilizing knowledge of art and printing to prepare image capable of being transferred. Inks surface of medium and transfers image to paper, using hand or machine press. Examines proofs and makes corrections to art work, if necessary. Approves and signs final proof. May prepare preliminary sketches. May use photographic or silk screen process to produce image. May use any suitable textured surface for printmaking medium. May use more than one process on single graphic. May print entire edition or instruct other workers to print it. May teach printmaking.
GOE: 01.02.03 STRENGTH: S GED: R5 M2 L4 SVP: 8 DLU: 77

144.061-018 SCULPTOR (profess. & kin.) alternate titles: statue maker

Designs and constructs three-dimensional art works, utilizing any combination of mediums, methods, and techniques: Carves objects from stone, con-

crete, plaster, wood, or other material, using abrasives, chisels, gouges, mallets, and other handtools and power tools. Models plastic substance, such as clay or wax, using fingers and small handtools to form objects which may be cast in bronze or concrete, or fired to harden objects. Constructs artistic forms from metal or stone, using metalworking, welding, or masonry tools and equipment. Cuts, bends, laminates, arranges, and fastens individual or mixed raw and manufactured materials and products to form art works. Usually works under contract or commission. May teach sculpturing [TEACHER, ART (education)]. May specialize in one technique or medium and be identified accordingly.
GOE: 01.02.02 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 77

149 OCCUPATIONS IN ART, N.E.C.

This group includes occupations, not elsewhere classified, concerned with art.

149.021-010 TEACHER, ART (education) alternate titles: art instructor

Instructs pupils in art, such as painting, sketching, designing, and sculpturing: Prepares lesson plans and establishes course goals. Selects books and art supplies for courses. Demonstrates method and procedure to pupils. Observes and evaluates pupils' work to determine student progress or to make suggestions for improvement. Confers with student, parent, and counselor to resolve student problem. Accompanies students on field trips to museums or art galleries. May specialize in teaching one or more areas of art, such as illustration, art history, or commercial art. May direct planning and supervision of student contests and arranging of art exhibits. May teach students with disabilities. May be required to have certification from state. May be designated according to subject taught as Instructor, Illustration (education); Instructor, Industrial Design (education).
GOE: 01.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

149.031-010 SUPERVISOR, SCENIC ARTS (motion picture; radio-tv broad.)

Creates layouts of scenery and backdrops for motion picture and television sets according to instructions, and supervises and coordinates activities of artists who paint them: Confers with ART DIRECTOR (motion picture; radio-tv broad.) 142.061-062 regarding details of background against which action is to be photographed. Directs preparation of sketches and designs or assigns work based on illustrations received from ART DIRECTOR (motion picture; radio-tv broad.). Computes amount of surface to be covered by specific color scaeme in proportion to its application in scene. Requisitions paint and materials. Estimates costs of paints and other materials, using price lists and records of previous productions, to prepare budget. Estimates number of workers and time required to complete project. May prepare sketches or work drawings, including coloring details of scenery.
GOE: 01.02.03 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

149.041-010 QUICK SKETCH ARTIST (amuse. & rec.)

Sketches likeness of customers: Poses subject to accentuate most pleasing features and draws likeness, using pencil, charcoal, pastels, or other medium. May draw sketch from photograph. May only draw exaggerated likenesses and be designated Caricaturist (amuse. & rec.). May be identified according to medium worked in.
GOE: 01.02.02 STRENGTH: S GED: R5 M1 L3 SVP: 6 DLU: 77

149.051-010 SILHOUETTE ARTIST (amuse. & rec.)

Cuts silhouettes of customers: Poses subject to present pleasing profile and cuts freehand outline of profile from paper (silhouette). Glues silhouette on paper of constrasting color or mounts silhouette in frame or folder. May draw profile prior to cutting it. May cut profile from photograph. May use strong lights adjusted to cast subject's shadow on backdrop as aid in viewing subject's profile.
GOE: 01.02.02 STRENGTH: S GED: R5 M1 L3 SVP: 6 DLU: 77

149.061-010 AUDIOVISUAL PRODUCTION SPECIALIST (profess. & kin.) alternate titles: instructional technology specialist

Plans and produces audio, visual, and audiovisual material for communication and learning: Develops production ideas based on assignment or generates own ideas based on objectives and personal interest. Conducts research or utilizes knowledge and training to determine format, approach, content, level, and medium which will be most effective, meet objectives, and remain within budget. Plans and develops, or directs assistants to develop, preproduction ideas into outlines, scripts, continuity, story boards, and graphics. Executes, or directs assistants to execute, rough and finished graphics and graphic designs. Locates and secures settings, properties, effects, and other production necessities. Directs and coordinates activities of assistants and other personnel during production. May review, evaluate, and direct modifications to material produced independently by other personnel. May set up, adjust, and operate equipment, such as cameras, sound mixers, and recorders during production. May perform narration or present announcements. May construct and place in position properties, sets, lighting equipment, and other equipment. May develop manuals, texts, workbooks, or related materials for use in conjunction with production materials. May conduct training sessions on selection, use, and design of audiovisual materials, and operation of presentation equipment. May perform duties listed under DIRECTOR, INSTRUCTIONAL MATERIAL (education) 099.167-018.
GOE: 01.02.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 80

149.261-010 EXHIBIT ARTIST (museums)

Produces artwork for use in permanent or temporary exhibit settings of museum, zoo, or similar establishment, performing any combination of following duties to prepare exhibit setting and accessories for installation: Confers with professional museum personnel to discuss objectives of exhibits and type of artwork needed. Makes scale drawing of exhibit design, indicating size, position, and general outlines of artwork needed for use of installation and other fabrication personnel. Paints scenic, panoramic, or abstract composition on canvas, board, burlap, or other material to be used as background or component of exhibit, following layout prepared by designer. Paints or stencils exhibit titles and legends on boards, or cuts letters from plastic or plywood to form title and legend copy, and mounts letters on panel or board, using adhesives or handtools. Photographs persons, artifacts, scenes, plants, or other objects, and develops negatives to obtain prints to be used in exhibits. Enlarges, intensifies, or otherwise modifies prints, according to exhibit design specifications. Fashions exhibit accessories, such as human figures, tree parts, or relief maps, from clay, plastic, wood, fiberglass, papier mache, or other materials, using hands, handtools, or molding equipment to cut, carve, scrape, mold, or otherwise shape material to specified dimensions. Brushes or sprays protective or decorative finish on completed background panels, informational legends, and exhibit accessories. Maintains files of photographs, paintings, and accessories for use in exhibits.
GOE: 01.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 86

149.281-010 FURNITURE REPRODUCER (furniture)

Prepares working drawings and templates of antique or custom furniture to facilitate reproduction: Draws sketches of piece, freehand or with drawing instruments. Measures piece with rule and calipers and notes dimensions on drawing. Makes detailed drawing of joints, carvings, and milled sections for shop use [DRAFTER (profess. & kin.)]. Traces or draws outlines of parts on plywood or cardboard and cuts out part along outline to make template. Marks templates to indicate name of part, type of construction, variety of wood, and finish. May make drawings from pictures when models are not available.
GOE: 05.03.02 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 77

15 OCCUPATIONS IN ENTERTAINMENT AND RECREATION

This division includes occupations concerned with amusing, diverting, or informing others by such means as sound or physical movement. Includes teaching these skills (except occupations in primary, secondary, and vocational schools which are included in Groups 091, 092, and 097).

150 OCCUPATIONS IN DRAMATICS

This group includes occupations concerned with interpreting roles to audiences in dramatic productions or readings.

150.027-010 DRAMATIC COACH (profess. & kin.)

Coaches performers in acting techniques: Conducts reading to evaluate performer's acting ability. Adapts training methods to improve and develop performer's competence. Coaches performers in camera or stage techniques, script analysis, voice projection, and character interpretation, to prepare them for stage, motion picture, or television production. Advises clients regarding wardrobe, grooming, and audition methods, to prepare them for professional contacts. May be designated according to area of specialization as Screen Coach (profess. & kin.); Theater Coach (profess. & kin.).
GOE: 01.03.01 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 77

150.027-014 TEACHER, DRAMA (education) alternate titles: instructor, dramatic arts; teacher, dramatics; teacher, theater arts

Teaches acting principles and techniques to individuals or groups: Conducts readings to evaluate student's talent. Adapts course of study and training methods to meet student's need and ability. Teaches enunciation, diction, voice development, and dialects, using voice exercises, speech drills, explanation, lectures, and improvisation. Discusses and demonstrates vocal and body expression to teach acting styles, character development, and personality projection. Produces and directs plays for school and public performances. Auditions students to select cast and assign parts. Rehearses and drills students to ensure they master parts. Assigns nonperforming students to backstage production tasks, such as constructing, painting, moving scenery, operating stage light, and sound equipment. May direct activities of students involved in constructing, painting, and lighting scenery. May teach elements of stagecraft, stage makeup, costume craft, play writing, or play direction.
GOE: 01.03.01 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 77

150.047-010 ACTOR (amuse. & rec.)

Portrays role in dramatic production to interpret character or present characterization to audience: Rehearses part to learn lines and cues as directed. Interprets serious or comic role by speech, gesture, and body movement to entertain or inform audience for stage, motion picture, television, radio, or other media production. May write or adapt own material. May dance and sing. May direct self and others in production [DIRECTOR, MOTION PICTURE (motion picture); DIRECTOR, STAGE (amuse. & rec.)]. May read from script or book, utilizing minimum number of stage properties and relying mainly on changes of voice and inflection to hold audience's attention and be designated Dramatic Reader (amuse. & rec.). May be designated according to gender of worker or type of role portrayed as Actress (amuse. & rec.); Character Actor (amuse. &

rec.); Character Actress (amuse. & rec.); Ingenue (amuse. & rec.); Juvenile (amuse. & rec.).
GOE: 01.03.02 STRENGTH: L GED: R5 M2 L5 SVP: 7 DLU: 77

150.067-010 DIRECTOR, STAGE (amuse. & rec.)
Interprets script, directs technicians, and conducts rehearsals to create stage presentation: Confers with PLAYWRIGHT (profess. & kin.) and PRODUCER (amuse. & rec.) to discuss script changes. Confers with MANAGER, STAGE (amuse. & rec.) to coordinate production plans. Rehearses cast in individual roles to elicit best possible performance. Suggests changes, such as voice and movement, to develop performance based on script interpretation and using knowledge of acting techniques. Approves scenic and costume designs, sound, special effects, and choreography. May select cast. May select SET DESIGNER (amuse. & rec.).
GOE: 01.03.01 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

150.147-010 NARRATOR (motion picture) alternate titles: motion-picture commentator
Makes explanatory comments to accompany action parts of motion picture: Reads from script and speaks into microphone as film is being projected, timing comments to fit action portrayed. May write script.
GOE: 01.03.03 STRENGTH: L GED: R5 M2 L5 SVP: 5 DLU: 77

151 OCCUPATIONS IN DANCING

This group includes occupations concerned with the interpretation of ideas through rhythmic expression.

151.027-010 CHOREOGRAPHER (amuse. & rec.) alternate titles: director, dance
Creates and teaches original dances for ballet, musical, or revue to be performed for stage, television, motion picture, or nightclub production: Composes dance designed to suggest story, interpret emotion, or enliven show, coordinating dance with music. Instructs performers at rehearsals to achieve desired effect. May audition performers for specific parts. May direct and stage presentation.
GOE: 01.05.01 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

151.027-014 INSTRUCTOR, DANCING (education) alternate titles: professor, dance; teacher, dancing
Instructs pupils in ballet, ballroom, tap, and other forms of dancing: Observes students to determine physical and artistic qualifications and limitations and plans programs to meet students' needs and aspirations. Explains and demonstrates techniques and methods of regulating movements of body to musical or rhythmic accompaniment. Drills pupils in execution of dance steps. May teach history of dance. May teach theory and practice of dance notation. May choreograph and direct dance performance. May be designated according to style of dancing taught as Instructor, Ballroom Dancing (education); Instructor, Tap Dancing (education); Teacher, Ballet (education). May be employed by ballet company to train corps de ballet and be designated Ballet Master/Mistress (education).
GOE: 01.05.01 STRENGTH: H GED: R5 M2 L5 SVP: 6 DLU: 80

151.047-010 DANCER (amuse. & rec.)
Dances alone, with partner, or in group to entertain audience: Performs classical, modern, or acrobatic dances, coordinating body movements to musical accompaniment. Rehearses dance movements developed by CHOREOGRAPHER (amuse. & rec.). May choreograph own dance. May sing and provide other forms of entertainment. May specialize in particular style of dancing and be designated according to specialty as Acrobatic Dancer (amuse. & rec.); Ballet Dancer (amuse. & rec.); Ballroom Dancer (amuse. & rec.); Belly Dancer (amuse. & rec.); Chorus Dancer (amuse. & rec.); Interpretative Dancer (amuse. & rec.); Strip-Tease Dancer (amuse. & rec.); Tap Dancer (amuse. & rec.).
GOE: 01.05.02 STRENGTH: H GED: R4 M2 L4 SVP: 7 DLU: 77

152 OCCUPATIONS IN MUSIC

This group includes occupations concerned with the composition, arrangement, rendition, or direction of instrumental or vocal music.

152.021-010 TEACHER, MUSIC (education) alternate titles: music instructor
Teaches individuals or groups instrumental or vocal music in public or private school: Plans daily classroom work based on teaching outline prepared for course of study to meet curriculum requirements. Evaluates students' interests, aptitudes, temperament, and individual characteristics to determine suitable instrument for beginner. Sings or plays instrument to demonstrate musical scales, tones, and rhythm. Instructs students in music theory, harmony, score and sight reading, composition, music appreciation, and provides individual or group vocal and instrumental lessons using technical knowledge, aesthetic appreciation, and prescribed teaching techniques. Conducts group rehearsals and instructs and coaches members in their individual parts, in fundamentals of musicianship, and ensemble performance. Critiques performance to identify errors and reinforce correct techniques. Leads orchestra and choral groups in regular and special performances for school program, community activities, concerts, and festivals. Meets with parents of student to resolve student problem. May accompany students on field trips to musical performances. May order, store, and inventory musical instruments, music, and supplies. May teach students with disabilities. May be required to have certification from state. May be designated Teacher, Instrumental (education); Teacher, Vocal (education).
GOE: 01.04.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 81

152.041-010 MUSICIAN, INSTRUMENTAL (amuse. & rec.)
Plays musical instrument as soloist or as member of musical group, such as orchestra or band, to entertain audience: Studies and rehearses music to learn and interpret score. Plays from memory or by following score. May transpose music to play in alternate key. May improvise. May compose. May play instrument to signal activity, such as flag raising, post time, or arrival of dignitaries at sporting or other events. May be designated according to instrument played as Calliope Player (amuse. & rec.); Drummer (amuse. & rec.); Harpist (amuse. & rec.); Organist (amuse. & rec.); Pianist (amuse. & rec.); Violinist (amuse. & rec.). May accompany soloist or another MUSICIAN, INSTRUMENTAL (amuse. & rec.) and be designated Accompanist (amuse. & rec.).
GOE: 01.04.04 STRENGTH: L GED: R5 M3 L3 SVP: 8 DLU: 77

152.047-010 CHORAL DIRECTOR (profess. & kin.) alternate titles: choir leader;
Conducts vocal music groups, such as choirs and glee clubs: Auditions and selects members of group. Selects music to suit performance requirements and accommodate talent and ability of group. Directs group at rehearsals and performance to achieve desired effects, such as tonal and harmonic balance, dynamics, rhythm, tempo, and shading, utilizing knowledge of conducting techniques and music theory. May schedule tours and performances and arrange for transportation and lodging. May transcribe musical compositions and melodic lines to adapt them to or create particular style for group [ARRANGER (profess. & kin.)]. May conduct group with instrumental accompaniment [CONDUCTOR, ORCHESTRA (profess. & kin.)].
GOE: 01.04.01 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

152.047-014 CONDUCTOR, ORCHESTRA (profess. & kin.) alternate titles: band leader; director, music; orchestra leader
Conducts instrumental music groups, such as orchestras and dance bands: Auditions and selects members of group. Selects music to accommodate talents and abilities of group and to suit type of performance to be given. Positions members within group to obtain balance among instrumental sections. Directs group at rehearsals and performances to achieve desired effects, such as tonal and harmonic balance, dynamics, rhythms, tempos, and shadings, utilizing knowledge of conducting techniques, music theory and harmony, range and characteristics of instruments, and talents of individual performers. May transcribe musical compositions and melodic lines to adapt them to or create particular style for group [ARRANGER (profess. & kin.)]. May schedule tours and performances and arrange for transportation and lodging. May be designated according to specialization as Conductor, Dance Band (profess. & kin.); Conductor, Symphonic Orchestra (profess. & kin.).
GOE: 01.04.01 STRENGTH: L GED: R5 M3 L3 SVP: 9 DLU: 77

152.047-018 DIRECTOR, MUSIC (motion picture; radio-tv broad.) alternate titles: musical director; music department head
Plans and directs activities of personnel in studio music department and conducts studio orchestra: Selects vocal, instrumental, and recorded music suitable to type of program or motion picture and to entertainers who are to render selections. Engages services of COMPOSER (profess. & kin.) 152.067-014, as required, to write score for motion picture or television program. Issues assignments and reviews work of staff in such areas as scoring, arranging, and copying music, lyric writing, and vocal coaching. Auditions and selects vocal and instrumental talent for musical shows. Auditions and hires studio orchestra personnel. Conducts orchestra in recording or broadcast of music [CONDUCTOR, ORCHESTRA (profess. & kin.) 152.047-014].
GOE: 01.04.01 STRENGTH: L GED: R5 M4 L5 SVP: 9 DLU: 77

152.047-022 SINGER (amuse. & rec.; motion picture; radio-tv broad.)
Sings as soloist or member of vocal ensemble: Interprets music, using knowledge of harmony, melody, rhythm, and voice production, to present characterization or to achieve individual style of vocal delivery. Sings, following printed text and musical notation, or memorizes score. May sing a cappella or with musical accompaniment. May watch CHORAL DIRECTOR (profess. & kin.) or CONDUCTOR, ORCHESTRA (profess. & kin.) for directions and cues. May be known according to voice range as soprano, contralto, tenor, baritone, or bass. May specialize in one type of music, such as opera, lieder, choral, gospel, folk, or country and western and be identified according to specialty.
GOE: 01.04.03 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

152.067-010 ARRANGER (profess. & kin.) alternate titles: adapter; transcriber; transcripter
Transcribes musical composition for orchestra, band, choral group, or individual to adapt composition to particular style for which it was not originally written: Determines voice, instrument, harmonic structure, rhythm, tempo, and tone balance to achieve desired effect. Writes score, utilizing knowledge of music theory and instrumental and vocal capabilities [ORCHESTRATOR (profess. & kin.)]. May copy parts from score for individual performers within group [COPYIST (any industry)].
GOE: 01.04.02 STRENGTH: S GED: R6 M4 L5 SVP: 8 DLU: 77

152.067-014 COMPOSER (profess. & kin.)
Writes musical compositions: Creates musical ideas, using knowledge of harmonic, rhythmic, melodic, and tonal structure and other elements of music the-

y, such as instrumental and vocal capabilities. Creates original musical form
 writes within circumscribed musical form, such as sonata, symphony, or
pera. Transcribes ideas into musical notation.
OE: 01.04.02 STRENGTH: S GED: R6 M4 L6 SVP: 9 DLU: 77

52.067-018 CUE SELECTOR (radio-tv broad.)
Integrates prerecorded theme, background, and bridge music with story line
d film sequence to arrange musical score for episode of television series,
ing knowledge of film scoring: Reads script of episode to become familiar
ith story line. Confers with DIRECTOR, TELEVISION (radio-tv broad.) to
ordinate interpretation of script, including mood to be conveyed or quality
 character stressed. Listens to tape recording of theme, background, and
idge music to become familiar with them. Notes key of music, length of pas-
ge, and identification number. Selects passages which match story line of
ript to form tentative score. Views episode to align selections with action on
reen. Gives directions to technical personnel during electronic recording of
ore from tapes, making changes as needed.
OE: 01.04.02 STRENGTH: L GED: R6 M4 L5 SVP: 9 DLU: 77

52.067-022 ORCHESTRATOR (profess. & kin.)
Writes score for orchestra, band, choral group, or individual instrumentalist
 vocalist: Transposes music from one voice or instrument to another to ac-
mmodate particular musician or musical group. Scores composition consistent
th instrumental and vocal capabilities, such as range and key, using knowl-
ge of music theory. May transcribe composition to adapt it to particular style
RRANGER (profess. & kin.)]. May copy parts from score for individual per-
rmers [COPYIST (any industry)].
OE: 01.04.02 STRENGTH: S GED: R6 M4 L5 SVP: 8 DLU: 77

2.267-010 COPYIST (any industry)
Transcribes musical parts onto staff paper from score written by AR-
NGER (profess. & kin.) or ORCHESTRATOR (profess. & kin.) for each
trument or voice, utilizing knowledge of music notation and experience and
ckground in music. May transpose score to different key.
OE: 01.04.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

2.367-010 PROMPTER (amuse. & rec.)
Prompts performers in operatic productions: Marks copy of vocal score to
e cues. Observes CONDUCTOR, ORCHESTRA (profess. & kin.) and fol-
s vocal score to time cues accurately. Speaks or sings in language required
 opera to prompt performers.
E: 01.04.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

3 OCCUPATIONS IN ATHLETICS AND SPORTS

This group includes occupations concerned with application of the theoretical
practical aspects of athletics and sports. Includes teaching physical education
specialty schools or health clubs; scouting for professional athletes; coaching
school athletes; and giving instructions in golf, skiing, and similar activities.

3.117-010 HEAD COACH (amuse. & rec.) alternate titles: manager, athletic team
Plans and directs training and recommends acquisition or trade of players for
fessional athletic team: Directs conditioning of players to achieve maximum
letic performance. Assesses player's skills and assigns team positions. Evalu-
s own and opposition team capabilities to determine game strategy. Coaches
directs COACH, PROFESSIONAL ATHLETES (amuse. & rec.) to instruct
yers in techniques of game. Participates in discussions with other clubs to
 or trade players. May participate on team managed and be designated
ch-Player (amuse. & rec.); Player-Manager (amuse. & rec.).
E: 12.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 9 DLU: 77

117-014 MANAGER, ATHLETE (amuse. & rec.)
Manages affairs of PROFESSIONAL ATHLETE (amuse. & rec.) by nego-
ing with promoters or others to settle contracts and business matters and di-
s training: Negotiates with team management and promoters to obtain favor-
 contracts for client [BUSINESS MANAGER (amuse. & rec.)]. May pre-
be exercises, rest periods, and diet to be followed by PROFESSIONAL
HLETE (amuse. & rec.). May direct ATHLETIC TRAINER (amuse. & rec.;
cation) in conditioning PROFESSIONAL ATHLETE (amuse. & rec.). May
 directions to protege in athletic techniques. May determine strategy to be
owed by PROFESSIONAL ATHLETE (amuse. & rec.) in competition with
ers. May be designated according to type of PROFESSIONAL ATHLETE
use. & rec.) managed as Manager, Boxer (amuse. & rec.); Manager, Wres-
 (amuse. & rec.).
E: 11.12.03 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

.117-018 SCOUT, PROFESSIONAL SPORTS (amuse. & rec.)
valuates athletic skills of PROFESSIONAL ATHLETES (amuse. & rec.) to
rmine fitness and potentiality for professional sports and negotiates with
n to obtain services: Reviews prospects' exhibitions and past performance
rds. Negotiates with PROFESSIONAL ATHLETES (amuse. & rec.) to ar-
e contracts. Reports to team management results of scouting assignments,
 as selection or rejection of PROFESSIONAL ATHLETES (amuse. & rec.)
ted and persons and areas sighted for future recruitment. May be des-
ted according to type of sport in which engaged as Baseball Scout (amuse.
c.); Basketball Scout (amuse. & rec.); Football Scout (amuse. & rec.).
: 12.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

153.117-022 STEWARD, RACETRACK (amuse. & rec.)

Coordinates and directs racing activities at racetrack: Confers with track management and studies prior racing and attendance records to plan types of races to schedule. Confers with officials of other tracks to plan racing dates to coincide with number of days allotted by state racing commission. Assigns workers to duties, such as inspecting entrants, starting, and judging races to comply with racing commission regulations. Observes workers performing duties to ensure compliance with commission rules and track policy. Approves or disapproves requests of handlers to change equipment on horses. Confers with veterinary personnel regarding horses unfit to race. Serves as member of judiciary board that exercises control over racing participants and makes decisions in accordance with state racing commission rules on such matters as validity of complaints and order of finishes. Writes reports to comply with state racing commission rules, such as recording and reporting all complaints, actions taken, penalties imposed, and voting record of board members.
GOE: 12.01.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

153.137-010 MANAGER, POOL (amuse. & rec.)

Supervises and coordinates activities of swimming pool staff to prevent accidents and provide assistance to swimmers, and conducts swimming classes: Assigns duties to lifeguards, locker room attendants, and clerical staff. Schedules swimming classes for basic and specialty techniques, according to enrollment, age, and number of instructors. Meets with employees to discuss and resolve work related problems. Completes staff evaluation forms reflecting information such as work habits, effectiveness in interpersonal relations, and acceptance of responsibility. Instructs individuals or groups in swimming classes, principles of water confidence, and lifesaving. Administers first aid, according to prescribed procedures, or calls emergency medical facility, when necessary. Determines chlorine content, pH value, and color of pool water at periodic intervals during day, using testing kit. Completes forms indicating time, date, and pool water test results. Routes forms to supervisor for evaluation and filing. Maintains required forms, such as time and attendance, inventory list, and program of facility activities.
GOE: 11.11.02 STRENGTH: H GED: R3 M3 L3 SVP: 4 DLU: 86

153.167-010 PADDOCK JUDGE (amuse. & rec.)

Inspects equipment of horses and riders in paddock at racetrack before each race to determine that equipment meets track and state racing commission specifications: Reads racing programs to schedule arrival of horses and riders in paddock area. Examines horse's equipment and rider's attire to assure compliance with racing specifications. Orders equipment changes to conform to racing rules. Refers requests for equipment changes to racing officials. Tells riders to mount and dismount. Signals winning horse and rider to winner's circle. Reports delays in paddock area and equipment changes to racing officials. Examines credentials to prevent unauthorized persons from entering paddock area.
GOE: 12.01.02 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

153.167-014 PIT STEWARD (amuse. & rec.) alternate titles: pit boss; referee

Directs activities at automobile or motorcycle racetrack: Determines qualifying order of vehicles for each race based on trial event results or by drawing numbers. Assigns STARTERS (amuse. & rec.) to position on track. Controls traffic to ensure only authorized number of vehicles are in pit. Directs vehicles to assigned places in pit. Ascertains legality of pit stops according to rules set by sanctioning body authorizing race. Consults with SCORERS (amuse. & rec.) to resolve scoring disputes. Determines penalties to be assessed for rules violation. May inspect vehicles and drivers for safety equipment, such as seat belts, harnesses, and helmets.
GOE: 12.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

153.167-018 RACING SECRETARY AND HANDICAPPER (amuse. & rec.)

Plans and arranges racing schedules and assigns handicapped weights to horses at racetrack: Analyzes official workout and past performance records to arrange races between horses of equal experience and ability. Handicaps horse in each race by assigning weight it will carry, using knowledge of handicapping and based on data, such as age, sex, total winnings of horse, and distances of races won. Confers with track management personnel to plan types of races to schedule and to determine purse for each race. Reviews application requesting permission to enter and train horse for competition. Accepts application and entrance fee from owner. Registers names of persons having financial interest in horse. Reviews racing information to be published in newspaper, racing form, and daily racing program. Directs activities of workers engaged in duties, such as compiling racing information and assigning stable space. Records information regarding official racing result to keep file on each horse's ability. Records changes of ownership and submits report to track officials. May observe race to study ability and form of horse, verify selection of entries, and assignment of handicap weights.
GOE: 12.01.02 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

153.224-010 ATHLETIC TRAINER (amuse. & rec.; education)

Evaluates physical condition and advises and treats professional and amateur athletes to maintain maximum physical fitness for participation in athletic competition: Prescribes routine and corrective exercises to strengthen muscles. Recommends special diets to build up health and reduce overweight athletes. Massages parts of players' bodies to relieve soreness, strains, and bruises. Renders first aid to injured players, such as giving artificial respiration, cleaning and

bandaging wounds, and applying heat and cold to promote healing. Calls physician for injured persons as required. Wraps ankles, fingers, or wrists of athletes in synthetic skin, protecting gauze, and adhesive tape to support muscles and ligaments. Treats chronic minor injuries and related disabilities to maintain athletes' performance. May give heat and diathermy treatments as prescribed by health service. Workers are identified according to type of sport.
GOE: 10.02.02 STRENGTH: M GED: R5 M4 L4 SVP: 8 DLU: 77

153.227-010 COACH, PROFESSIONAL ATHLETES (amuse. & rec.) alternate titles: coach

Analyzes performance and instructs PROFESSIONAL ATHLETES (amuse. & rec.) in game strategies and techniques to prepare them for athletic competition: Observes players while they perform to determine need for individual or team improvement. Coaches players individually or in groups, demonstrating techniques of sport coached. Oversees daily practice of players to instruct them in areas of deficiency. Determines strategy during game, independently or in conference with other COACH, PROFESSIONAL ATHLETES (amuse. & rec.) or HEAD COACH (amuse. & rec.) based on factors as weakness in opposing team. May be designated according to phase of game coached as Defensive-Line Coach (amuse. & rec.); Pitching Coach (amuse. & rec.). May be designated according to game coached as Basketball Coach (amuse. & rec.); Football Coach (amuse. & rec.); Swimming Coach (amuse. & rec.); Tennis Coach (amuse. & rec.).
GOE: 12.01.01 STRENGTH: H GED: R5 M3 L4 SVP: 8 DLU: 77

153.227-014 INSTRUCTOR, PHYSICAL (amuse. & rec.; education)

Teaches individuals or groups beginning or advanced calisthenics, gymnastics, and reducing or corrective exercises, in private health club or gymnasium, evaluating abilities of individual to determine suitable training program: Teaches and demonstrates use of gymnastic apparatus, such as trampolines, corrective weights, and mechanical exercisers. Demonstrates and teaches body movements and skills used in sports. Advises clients in use of heat or ultraviolet treatments and hot baths. Lubricates mechanical equipment and reports malfunctioning equipment to maintenance personnel.
GOE: 10.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

153.227-018 INSTRUCTOR, SPORTS (amuse. & rec.; education) alternate titles: athletic coach

Teaches sport activity to individual or groups at private or public recreational facility or school: Explains and demonstrates use of apparatus and equipment. Explains and demonstrates principles, techniques, and methods of regulating movement of body, hands, or feet to achieve proficiency in activity. Observes students during practice to detect and correct mistakes. Explains and enforces safety rules and regulations. Explains method of keeping score. May organize and conduct competition and tournaments. May participate in competition to demonstrate skill. May purchase, display, sell, maintain, or repair equipment. May keep record of receipts and expenditures. May lecture on history and purpose of sport. Workers are identified according to sport instructed, such as golf, fencing, or tennis.
GOE: 12.01.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 81

153.243-010 AUTOMOBILE RACER (amuse. & rec.)

Drives automobile racing car in competition road races: Drives car over track where race is to be run to familiarize self with course. Participates in speed and elimination trial races to qualify car for race. Drives car in race and analyzes speed and position of other cars to determine when and where to drive car so as to be in favorable position to win. Observes fuel, oil, and compression gauges on dashboard of car to ensure that car is operating efficiently. Watches for warning signs, such as flags or flares, that indicate an accident is present and drives car accordingly. May perform maintenance work on car.
GOE: 12.01.03 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

153.243-014 MOTORCYCLE RACER (amuse. & rec.)

Rides motorcycle over track, course, or natural terrain in competitive races: Operates motorcycle, using hands and feet to manipulate controls. Evaluates power, speed, maneuverability, and position of own and other motorcycles in race to determine strategy. Listens to engine and reads tachometer to determine gear change and maximum speed which obstacles, such as turns and jumps can be taken. Maneuvers motorcycles to avoid track accident, unexpected barrier, or other emergency situation. Watches for warning flags, and other signals to follow instructions given by track officials. May perform maintenance work on motorcycle. May specialize in one type of competition, such as road, dirt track, motocross, off road, or speedway racing.
GOE: 12.01.03 STRENGTH: H GED: R3 M2 L3 SVP: 5 DLU: 77

153.244-010 JOCKEY (amuse. & rec.)

Rides racehorse at racetrack: Confers with training personnel to plan strategy for race, based on ability and peculiarities of own and other horses in competition. Mounts horse in paddock after weighing-in, and rides horse to specified numbered stall of starting gate. Races from starting gate to finish line. Talks to training personnel after race to analyze horse's performance.
GOE: 12.01.03 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 77

153.244-014 SULKY DRIVER (amuse. & rec.) alternate titles: harness racer

Drives horse-drawn, two-wheel sulky in harness race: Studies performance record of competing horses to plan race strategy. Controls speed of horse in specific sections of racetrack, applying knowledge of harness racing to determine when to challenge for lead of race. May train own harness racing horses. May direct activities of workers involved in grooming, training, feeding, stabling, handling and transporting harness race horses.
GOE: 12.01.03 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 77

153.267-010 HORSE-RACE STARTER (amuse. & rec.) alternate titles: starter

Determines entry sequence into starting gate and gives directions to riders and other track personnel to get horses into position for horse race: Evaluates performance and training record and observes horse's behavior to determine entry sequence. Directs entry of horse and rider into starting gate according to planned sequence and stall number. Gives directions to track personnel to assist rider when horse refuses to enter starting gate. Reports undue starting delay to racing officials. Presses button to open gate automatically when horses are correctly aligned. May recommend removal of horse unfit to start race. May schedule morning workouts for horses requiring familiarization with starting gate procedures.
GOE: 12.01.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

153.267-014 PATROL JUDGE (amuse. & rec.)

Observes horse race at racetrack to detect infractions of racing rules and resolve claims of fouls committed: Watches race from elevated stand at one of several locations around track, using binoculars to detect infractions of rules, such as action of JOCKEY (amuse. & rec.) causing another horse to change stride. Reports name and number of horse and rider guilty of foul to racing officials for disciplinary action. Confers with racing officials and watches motion picture of race to verify infractions and to determine validity of complaints lodged by participants. Submits report to racing officials concerning infractions of rules and disciplinary action taken. When flashing numbers of first three horses as race progresses or observing horses in stretch in order to post first four horses crossing finish line, is designated Placing Judge (amuse. & rec.).
GOE: 12.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

153.267-018 UMPIRE (amuse. & rec.) alternate titles: field captain; judge; referee

Officiates at sporting events: Observes actions of participants to detect infractions of rules. Decides disputable matters according to established regulations. When concerned only with determining validity of goals, finish line order, or out-of-bound plays, may be designated Finish Judge (amuse. & rec.); Goal Umpire (amuse. & rec.); Line Umpire (amuse. & rec.).
GOE: 12.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

153.287-010 HOOF AND SHOE INSPECTOR (amuse. & rec.) alternate titles: plating inspector

Inspects hoofs and shoes (plates) of horses at racetrack to determine that hoofs have been trimmed to prevent stumbling during race and to detect loose or broken shoes: Records names of horse, owner, and RACEHORSE TRAINER (amuse. & rec.) and condition of horse's hoofs and shoes. Presents information to STEWARD, RACETRACK (amuse. & rec.) for further action. May remove and replace broken or cracked plates. May instruct handlers to secure plates or trim horses hoofs as required.
GOE: 03.03.02 STRENGTH: L GED: R4 M1 L3 SVP: 6 DLU: 77

153.341-010 PROFESSIONAL ATHLETE (amuse. & rec.)

Participates in professional competitive athletic events, such as football, boxing, and hockey, to entertain audience: Exercises and practices under direction of ATHLETIC TRAINER (amuse. & rec.; education) 153.224-010 or COACH, PROFESSIONAL ATHLETES (amuse. & rec.) 153.227-010 to train for sport. Plays game and engages in sport conforming to established rules and regulations. Athletes are identified according to professional sport in which engaged. May speak, as representative of team or professional sports club, to groups involved in activities, such as sports clinics and fund raisers.
GOE: 12.01.03 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 81

153.367-010 CLOCKER (amuse. & rec.)

Clocks (times) racehorses at racetrack during morning workouts to obtain speed information: Identifies each horse on track by its particular identifying marks and color, and records name. Observes horse during workout and assigns speed rating according to effort extended by horse and rider, distance run, and time required as measured by stopwatch. Records information and submits it to track management.
GOE: 12.01.02 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

153.367-014 HORSE-RACE TIMER (amuse. & rec.)

Clocks and records time required for horse leading in race to run specified distance: Observes signal for official start and activates stopwatch to time race. Observes leading horse crossing markers denoting fractional parts and finish line of race to note and record time elapsed. Compares recorded results with those obtained by automatic electronic timer and reports difference to racing officials. Writes daily report of name, number of leading horse, fractional and total time required for each race to submit to track officials.
GOE: 12.01.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

153.384-010 MARSHAL (amuse. & rec.)

Rides saddle horse to lead parade of horserace entrants onto track to mobile-starting-gate assembly area. Mounts quarter horse and chases and restrains runaways to prevent injury to horses and thrown riders and disruption of race.
GOE: 12.01.02 STRENGTH: H GED: R3 M1 L1 SVP: 4 DLU: 77

153.387-010 IDENTIFIER, HORSE (amuse. & rec.)

Verifies identification of horses at receiving barn of racetrack: Checks identifying features, such as tattooed registration number on lip and physical appear-

ance with official records and photographs to ensure only horses scheduled to race are permitted in paddock. Releases identified horses to handlers for transfer to paddock for saddling. Notifies track officials when doubt exists as to horses' identity. Records physical changes in horses, such as weight increase or scar received since last inspection, to keep identification records current.
GOE: 12.01.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

153.387-014 SCORER (amuse. & rec.) alternate titles: lap checker

Records laps completed by drivers in automobile or motorcycle race: Observes vehicles passing start-finish line to obtain count of laps completed by each competitor. Enters lap count onto scoresheet. Totals laps at end of race to determine winner, order of finish, and lap count for each racer. May clock and record time during race and be designated Timer (amuse. & rec.). May give directions to other SCORERS (amuse. & rec.) and be designated Head Scorer (amuse. & rec.).
GOE: 12.01.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

153.467-010 CLERK-OF-SCALES (amuse. & rec.)

Weighs JOCKEYS (amuse. & rec.) and riding equipment before and after each race to ensure that assigned handicapped weights have been carried during race: Weighs rider and saddle on scale to assure that weight is as specified on racing program. Directs rider to insert or remove lead pads from saddle pocket to meet specified weight. Notifies racing officials of rider unable to meet weight limit. Weighs rider and equipment after race to assure that lead pads were not lost during race.
GOE: 12.01.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

153.667-010 STARTER (amuse. & rec.)

Waves signal flags of different color and design to start and stop automobile or motorcycle race and to inform drivers of track condition: Signals slower driver to move aside to allow passage of faster vehicles. Signals drivers to slow down or stops race for clearing of track following accidents. Signals specific driver to return to pit for consultation upon request of AUTOMOBILE MECHANIC (automotive ser.); MOTORCYCLE REPAIRER (automotive ser.); PIT STEWARD (amuse. & rec.), or other track official.
GOE: 12.01.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

153.674-010 EXERCISER, HORSE (amuse. & rec.)

Rides racehorses to exercise and condition them for racing: Rides racehorse during workout and training races, following specific instructions of training personnel. Informs training personnel of horses' temperament, peculiarities, and physical condition as demonstrated during exercise so that training plans can be modified to prepare horse for racing.
GOE: 03.03.01 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

153.674-014 LEAD PONY RIDER (amuse. & rec.)

Rides lead pony to lead JOCKEY (amuse. & rec.) and mount from paddock to starting gate at racetrack: Leads horse scheduled to race from receiving barn to paddock to be saddled. Leads procession of riders in post position order to starting gate. Rides after runaway horse to aid rider regain control. Diverts riders from competitor involved in accident on racetrack. Leads race horse to paddock or receiving barn after race. Assists horse ambulance workers to remove injured horse from track, using block and tackle. Grooms and feeds lead pony.
GOE: 12.01.02 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

159 OCCUPATIONS IN ENTERTAINMENT AND RECREATION, N.E.C.

This group includes occupations, not elsewhere classified, concerned with entertainment.

159.041-010 MAGICIAN (amuse. & rec.)

Performs original and stock tricks of illusion and sleight of hand to entertain and mystify audience, using props, such as illusion boxes, scarf, cards, rabbit, and jewelry. May include participant from audience in act to remove personal valuables, such as wallets or jewelry, without participant's knowledge.
GOE: 01.03.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

159.041-014 PUPPETEER (amuse. & rec.)

Originates puppet shows, designs and constructs puppets and moves controls of puppets to animate them for entertainment of audience: Studies media for ideas that relate to fads, stories, plays, and seasonal themes and confers with other staff to develop ideas for new show. Writes or adapts script for use in puppet theater. Sketches designs for puppets based on script. Constructs hand, string, rod, and shadow puppets from materials, such as wood, papier mache, styrofoam, wires, metal, and rubber, using handtools and machine tools. Sews clothing for puppets by hand or machine. Animates puppets, using string, wire, rod, fingers or hand from position above, below, or at level with stage. Talks or sings during performance to give illusion of voice to puppets. May operate audio equipment, such as tape deck, during performance and simultaneously move puppet's mouth in synchronization with music to create illusion of singing.
GOE: 01.03.02 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 79

159.042-010 LASERIST (amuse. & rec.)

Creates optical designs-and-effects show for entertainment of audiences, using control console and related laser projection and recording equipment: Sets up and operates console to control laser projection, recording equipment, and house lights. Presses switches and turns dials to dim house lights, cue opening music, and begin programmed laser sequence. Moves controls to orchestrate colors, patterns, and movements in concert with musical accompaniment. Tests, repairs, and adjusts laser and sound systems, using circuit schematics and test equipment. Examines, cleans, and maintains system cooling, optical, and sound equipment according to preventive maintenance schedule. Discusses show concepts and laser equipment operation with press representatives to promote public relations.
GOE: 05.03.05 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 86

159.044-010 VENTRILOQUIST (amuse. & rec.)

Entertains audience by projecting voice so that it appears to come from dummy or puppet: Changes position of dummy or puppet during performance to give illusion of life. May construct puppet or dummy. May write script for show.
GOE: 01.03.02 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

159.047-010 CLOWN (amuse. & rec.)

Dresses in comical costume and makeup and performs original or stock comedy routines to entertain audience.
GOE: 01.03.02 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

159.047-014 COMEDIAN (amuse. & rec.) alternate titles: comic

Attempts to make audience laugh by telling jokes, delivering comic lines, singing humorous songs, performing comedy dances or walks, or facial contortions, wearing funny costumes, or resorting to any similar device to amuse audience. May do impersonations [IMPERSONATOR (amuse. & rec.)].
GOE: 01.03.02 STRENGTH: L GED: R5 M2 L4 SVP: 5 DLU: 77

159.047-018 IMPERSONATOR (amuse. & rec.) alternate titles: imitator; mimic

Entertains by impersonating another person, or type of person, or animal, or some inanimate object, usually by copying mannerisms, form, expression, dress, voice, or sound of character or thing impersonated. May be designated according to character impersonated as Animal Impersonator (amuse. & rec.); Female Impersonator (amuse. & rec.); Male Impersonator (amuse. & rec.).
GOE: 01.03.02 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

159.047-022 MIME (amuse. & rec.) alternate titles: pantomimist

Presents serious, humorous, or burlesqued interpretations of emotions, dramatic actions, and various situations through body movements, facial expressions, and gestures.
GOE: 01.03.02 STRENGTH: L GED: R5 M2 L3 SVP: 7 DLU: 77

159.067-010 DIRECTOR, MOTION PICTURE (motion picture)

Reads and interprets script, conducts rehearsals, and directs activities of cast and technical crew for motion picture film: Confers with ART DIRECTOR (motion picture; radio-tv broad.) to ensure that music, sets, scenic effects, and costumes conform to script interpretation. Confers with DIRECTOR OF PHOTOGRAPHY (motion picture) to explain details of scene to be photographed and to consider utilization of miniatures, stock film, inserts, transparencies, backgrounds, or trick shots. Schedules sequences of scenes to be filmed for each day of shooting, grouping scenes together according to set and cast of characters. Rehearses cast and suggests changes, using knowledge of acting, voice, and movement to elicit best possible performance. Informs technicians of scenery, lights, props, and other equipment desired. Approves scenery, costumes, choreography, and music. Directs cast, DIRECTOR OF PHOTOGRAPHY (motion picture; radio-tv broad.), and other technicians during rehearsals and final filming. May audition and select cast. May cut and edit film. May direct film on set in studio or on location. May direct film for television.
GOE: 01.03.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

159.067-014 DIRECTOR, TELEVISION (radio-tv broad.)

Plans and directs audio and video aspects of television programs, based on program specifications and knowledge of television programming techniques: Interprets script, rehearses cast, and establishes pace of program to stay within time requirements. Informs technicians of scenery, lights, props, and other equipment desired. Approves scenery, costumes, choreography, and music. Issues instructions to technicians from control room during telecast to keep them informed of effects desired, such as dissolves, long shots, medium shots, superimpositions, fade-ins, and fade-outs. May move controls to integrate material from multisite origins into live program. May direct news and special events programs. May direct program for live broadcast or for electronic video recording. May direct nonbroadcast television presentation, such as program for sales, medical, educational, or industrial purposes. May direct commercials. May operate viewing/editing equipment to review and edit program tapes, using personal knowledge of television programming and editing techniques. May key information into computer, using keyboard, to compile letters, memos, and other program material, such as scripts and notes. May be designated Producer-Director (radio-tv broad.) in small station.
GOE: 01.03.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 89

159.117-010 PRODUCER (radio-tv broad.) alternate titles: associate producer

Plans and coordinates various aspects of radio, television, or cable television programs: Interviews and selects SCREEN WRITERS (motion picture; radio-tv broad.) 131.067-050 and cast principals from staff members or outside talent. Outlines program to be produced to SCREEN WRITERS (motion picture; radio-tv broad.) and evaluates finished script. Composes or edits program script

to meet management or other requirements, using typewriter or computer terminal. Coordinates various aspects of production, such as audio work, scenes, music, timing, camera work, and script writing. Gives instructions to staff to schedule broadcast and to develop and coordinate details to obtain desired production. Reviews production to ensure objectives are attained. Views taped program to select scenes to be used for promotional purposes, using video equipment. Listens to audio tape recording to verify program, script, or sound effects conform to broadcast standards, using audio equipment. May obtain costumes, props, music, or other equipment or personnel to complete production. May represent television network, acting as liaison to independent producer of television series produced for network broadcast. May review budget and expenditures for programs or commercial productions for conformance to budgetary restrictions. May coordinate production details to produce live television programs from locations distant from station. May be designated according to level of responsibility and by type of show produced as Executive Producer (radio-tv broad.); or by type of media as Radio Producer (radio-tv broad.); Television Producer (radio-tv broad.).
GOE: 01.03.01 STRENGTH: L GED: R6 M4 L6 SVP: 8 DLU: 89

159.124-010 COUNSELOR, CAMP (amuse. & rec.)
Directs activities of children at vacation camp: Plans activities, such as hikes, cookouts, and campfires, to provide wide variety of camping experiences. Demonstrates use of camping equipment and explains principles and techniques of activities, such as backpacking, nature study, and outdoor cooking, to increase campers' knowledge and competence. Plans and arranges competition in activities, such as team sports or housekeeping, to stimulate campers interest and participation. Demonstrates use of materials and tools to instruct children in arts and crafts. Instructs campers in skills, such as canoeing, sailing, swimming, archery, horseback riding, and animal care, explaining and demonstrating procedures and safety techniques. Organizes, leads, instructs, and referees games. Enforces camp rules and regulations to guide conduct, maintain discipline, and safeguard health of campers. May be identified according to type of camp activity.
GOE: 09.01.01 STRENGTH: M GED: R4 M2 L4 SVP: 5 DLU: 80

159.147-010 ANNOUNCER (radio-tv broad.) alternate titles: radio board operator-announcer
Announces radio and television programs to audience: Memorizes script, reads, or ad-libs to identify station, introduce and close shows, and announce station breaks, commercials, or public service information. Cues worker to transmit program from network central station or other pick-up points according to schedule. Reads news flashes to keep audience informed of important events. May rewrite news bulletin from wire service teletype to fit specific time slot. May describe public event such as parade or convention. May interview guest, such as sport or other public personality, and moderate panel or discussion show to entertain audience. May keep daily program log. May operate control console (radio board). May perform additional duties in small stations, such as operating radio transmitter [TRANSMITTER OPERATOR (radio-tv broad.) 193.262-038], selling time, or writing advertising copy. May be designated according to media as Radio Announcer (radio-tv broad.); Television Announcer (radio-tv broad.). May announce program of local interest and be designated Local Announcer (radio-tv broad.). May announce program for transmission over network and affiliated stations and be designated Network Announcer (radio-tv broad.). May announce in foreign language for international broadcast and be designated Announcer, International Broadcast (radio-tv broad.). May describe sporting event during game from direct observation or announce sports news received at station for radio or television broadcasting and be designated Sports Announcer (radio-tv broad.).
GOE: 01.03.03 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 89

159.147-014 DISC JOCKEY (radio-tv broad.)
Announces radio program of musical selections: Selects phonograph or tape recording to be played based on program specialty, knowledge of audience taste, or listening audience requests. Comments on music and other matters of interest to audience, such as weather, time, or traffic conditions. May interview musical personalities. May interview members of listening audience who telephone musical requests. May specialize in one type of music, such as classical, pop, rock, or country and western. May write entries onto log to provide information on all elements aired during broadcast, such as musical selections and station promotions. May be designated Combination Operator (radio-tv broad.) when operating transmitter or control console.
GOE: 01.03.03 STRENGTH: L GED: R5 M3 L5 SVP: 5 DLU: 89

159.147-018 SHOW HOST/HOSTESS (radio-tv broad.) alternate titles: game show host/hostess; talent; talk show host/hostess
Performs any combination of following duties to broadcast program over television or radio: Discusses and prepares program content with PRODUCER (radio-tv broad.) 159.117-010 and assistants. Interviews show guests about their lives, their work, or topics of current interest. Discusses various topics over telephone with viewers or listeners. Asks questions of contestants, or manages play of game, to enable contestants to win prizes. Describes or demonstrates products that viewers may purchase by telephoning show or by mail, or may purchase in stores. Acts as Host/Hostess at civic, charitable, or promotional events that are broadcast over television or radio.
GOE: 01.03.03 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 89

159.167-010 ARTIST AND REPERTOIRE MANAGER (amuse. & rec.)
Selects recording artists and musical selections for production of phonograph records: Auditions recording artist or record to select most appropriate talent for each recording, using knowledge of vocal and instrumental technique and familiarity with popular taste in music. May direct recording sessions. May promote record sales by personal appearances and contacts with broadcasting personalities.
GOE: 01.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

159.167-014 DIRECTOR, RADIO (radio-tv broad.) alternate titles: director, broadcast
Directs rehearsals and broadcast of one or more radio programs for live broadcast or electronic recording: Selects assisting staff and performers for radio program or commercial announcement. Integrates various parts of program or commercial announcement to produce entertainment balance. Rehearses staff and performers to elicit effects desired and best possible performance. Establishes pace of program or commercial announcement to stay within time requirements. Cues ANNOUNCERS (radio-tv broad.) 159.147-010 and technicians during program to insert spot announcements or commercials.
GOE: 01.03.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 89

159.167-018 MANAGER, STAGE (amuse. & rec.; radio-tv broad.)
Coordinates production plans and directs activities of stage crew and performers during rehearsals and performance: Confers with DIRECTOR, STAGE (amuse. & rec.) 150.067-010 concerning production plans. Arranges conference times for cast, crew, and DIRECTOR, STAGE (amuse. & rec.), and disseminates general information about production. Reads script during each performance and gives cues for curtain, lights, sound effects, and prompting performers. Interprets stage-set diagrams to determine stage layout. Supervises stage crew engaged in placing scenery and properties. Devises emergency substitutes for stage equipment or properties. Keeps records to advise PRODUCER (amuse. & rec.) 187.167-178 on matters of time, attendance, and employee benefits. Compiles cue words and phrases to form prompt book. Directs activities of one or more assistants. May instruct understudy, replacement, or extra. May call performers at specified interval before curtain time. May operate production equipment to transmit or record performance.
GOE: 01.03.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 87

159.167-022 EXECUTIVE PRODUCER, PROMOS (radio-tv broad.)
Directs and coordinates production of promos (promotional spot announcements) for local or national broadcasting service: Directs activities of workers involved in production of promos, utilizing knowledge of continuity writing, on-air promotion guidelines, filming and videotaping techniques, and usage of equipment. Edits scripts for continuity, applying knowledge of continuity writing. Contacts vendors to secure needed props, audio visual materials, and sound effects. Confers with operations and support services personnel to coordinate unit activities with those of other departments. Reviews and edits audio and video tapes, completed promos, and filler continuity, and schedules approved productions for broadcast. Arranges for timely delivery of promo materials to local or network promotion departments. Serves as liaison between station and advertising service of program sponsors or underwriters to coordinate unit activities with client promotional campaigns in other media.
GOE: 11.09.01 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 89

159.207-010 ASTROLOGER (amuse. & rec.)
Prepares and analyzes horoscope to advise clients regarding future trends and events: Prepares horoscope by computing position of planets, their relationship to each other and to zodiacal signs, based on factors, such as time and place subject was born. Analyzes horoscope chart to advise client, such as person or company, regarding conditions which lie ahead, course of action to follow, and probability of success or failure of that action.
GOE: 10.01.02 STRENGTH: S GED: R4 M4 L4 SVP: 4 DLU: 77

159.224-010 ANIMAL TRAINER (amuse. & rec.)
Trains animals to obey commands, compete in shows, or perform tricks to entertain audience: Evaluates animal to determine temperament, ability, and aptitude for training. Conducts training program to develop desired behavior. May organize format of show. May conduct show. May cue or signal animal during performance. May rehearse animal according to script for motion picture or television film or stage or circus program. May train guard dog to protect property. May teach guide dog and master to function as team. May feed, exercise, and give general care to animal. May observe animal's physical condition to detect illness or unhealthy condition requiring medical care. May be designated according to specific animal trained. May be designated Head Animal Trainer (amuse. & rec.) or Senior Animal Trainer (amuse. & rec.) when directing activities of other workers.
GOE: 03.03.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 82

159.227-010 INSTRUCTOR, BRIDGE (education) alternate titles: bridge expert
Teaches individuals or groups contract bridge, evaluating individual abilities to determine method and technique of instruction: Explains card suits and values and methods of scoring. Lectures, illustrates, and demonstrates to teach conventions and playing of bridge hands. Supervises individual and group practice, using prearranged decks of cards. Prepares instructional materials for outside study assignments. Usually specializes in one system of bidding. May participate in bridge tournaments. May direct bridge tournaments. May write instructional bridge columns and articles on bridge tournaments for local newspaper.
GOE: 09.01.01 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

159.247-010 ACROBAT (amuse. & rec.) alternate titles: tumbler
Entertains audience by performing difficult and spectacular feats, such as leaping, tumbling, and balancing, alone or as member of team. Originates act

or adapts stock presentations. May use equipment, such as chairs and teeter board. May juggle various articles [JUGGLER (amuse. & rec.)]. May perform feats requiring bodily contortions and be designated Contortionist (amuse. & rec.).
GOE: 12.02.01 STRENGTH: V GED: R3 M2 L2 SVP: 5 DLU: 77

159.247-014 AERIALIST (amuse. & rec.) alternate titles: trapeze artist; trapeze performer

Performs gymnastic feats of skill and balance while swinging on trapeze, turning somersaults, or executing flying stunts alone or as member of team.
GOE: 12.02.01 STRENGTH: V GED: R3 M3 L2 SVP: 6 DLU: 77

159.267-010 DIRECTOR, CASTING (motion picture; radio-tv broad.) alternate titles: talent director

Auditions and interviews performers for specific parts, considering such factors as physical size and appearance, quality of voice, expressiveness, and experience. Submits list of suitable performers to **PRODUCER** (radio-tv broad.) or **DIRECTOR, MOTION PICTURE** (motion picture); **DIRECTOR, RADIO** (radio-tv broad.); **DIRECTOR, TELEVISION** (radio-tv broad.) for final selection. Keeps talent file, including information, such as personality types, specialties, past performances, and availability of performers. May arrange for screen tests of new performers. May obtain contractual agreement from performers on such items as salary or fees, program credits, residual payments, performance dates, and production schedules.
GOE: 01.03.01 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

159.341-010 JUGGLER (amuse. & rec.)

Juggles and balances objects, such as balls, knives, plates, tenpins, and hats, to entertain audience.
GOE: 12.02.01 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

159.341-014 STUNT PERFORMER (amuse. & rec.; motion picture; radio-tv broad.)

Performs stunts, such as overturning speeding automobile or falling from runaway horse, and participates in fight-action scenes for motion picture, television, or stage production: Reads script and confers with **DIRECTOR, MOTION PICTURE** (motion picture) and **DIRECTOR OF PHOTOGRAPHY** (motion picture; radio-tv broad.) to ascertain positions of cameras and other performers. Examines terrain and inspects equipment, such as harness, rigging bars, or nets to avoid injury. Coordinates body movement and facial expression to simulate giving and receiving violent blows. Rehearses stunt routines alone or with other **STUNT PERFORMER** (amuse. & rec.; motion picture; radio-tv broad.). May design, build, or repair own safety equipment.
GOE: 12.02.01 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 77

159.344-010 EQUESTRIAN (amuse. & rec.)

Rides horses at circus, carnival, exhibition, or horse show, performing acrobatic stunts on saddled or saddleless horse or feats of equestrian skill and daring to entertain audience. When performing stunts on horse without saddle, may be designated Bareback Rider (amuse. & rec.).
GOE: 12.02.01 STRENGTH: M GED: R3 M3 L1 SVP: 6 DLU: 77

159.344-014 RODEO PERFORMER (amuse. & rec.)

Demonstrates daring and skill by bronc riding, calf roping, bull riding, steer wrestling, or similar feats in rodeo competition to entertain spectators and compete for prize money.
GOE: 12.02.01 STRENGTH: H GED: R3 M2 L3 SVP: 5 DLU: 77

159.344-018 SHOW-HORSE DRIVER (amuse. & rec.)

Rides or drives horse before judges in horse show, exercising care to display best points of animal to judges and spectators.
GOE: 12.02.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

159.347-010 ANNOUNCER (amuse. & rec.) alternate titles: public-address announcer

Announces information of interest to patrons of sporting and other entertainment events, using public address system: Announces program and substitutions or other changes to patrons. Informs patrons of coming events or emergency calls. May observe sporting event to make running commentary, such as play-by-play description or explanation of official decisions. May speak extemporaneously to audience on items of interest, such as background and past record of players. May read prepared script to describe acts or tricks during performance. May furnish information concerning play to **SCOREBOARD OPERATOR** (amuse. & rec.).
GOE: 01.07.02 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

159.347-014 AQUATIC PERFORMER (amuse. & rec.)

Performs water-ballet routines to entertain audience, utilizing synchronized techniques of swimming: May swim underwater, using air lines. May serve as **LIFEGUARD** (amuse. & rec.), sell tickets, or perform other duties when not participating in show.
GOE: 12.02.01 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

159.347-018 THRILL PERFORMER (amuse. & rec.)

Entertains audience at fairs, carnivals, and circuses by performing daredevil feats, such as diving from high diving board into tank of water, parachuting from airplane, or being shot from cannon onto net. May be designated according to specialty as Comedy Diver (amuse. & rec.); Human Projectile (amuse. & rec.); Parachutist (amuse. & rec.).
GOE: 12.02.01 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

159.347-022 WIRE WALKER (amuse. & rec.) alternate titles: high-wire artist; tight-rope walker

Walks across high wire or rope fastened between two stands or other uprights, performing acrobatic feats of balance, such as headstands, lie-downs, and somersaults to entertain audience. May walk ascending or descending wire or cable. May ride unicycle, bicycle, or motorcycle across wire. May perform as member of team.
GOE: 12.02.01 STRENGTH: M GED: R3 M2 L1 SVP: 6 DLU: 77

159.367-010 RING CONDUCTOR (amuse. & rec.)

Introduces circus acts, using presence and manner, to set style desired by circus management: Signals start and finish of individual acts, using knowledge of circus performance running order. Signals performers to coordinate smooth transition of acts and addresses audience to alleviate their concern in emergencies, such as accidents or equipment failure.
GOE: 01.07.02 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

159.647-010 AMUSEMENT PARK ENTERTAINER (amuse. & rec.)

Entertains audience in amusement park by exhibiting special skills. Designated according to specialty act performed as Fire Eater (amuse. & rec.); Hypnotist (amuse. & rec.); Organ Grinder (amuse. & rec.); Phrenologist (amuse. & rec.); Physiognomist (amuse. & rec.); Snake Charmer (amuse. & rec.); Sword Swallower (amuse. & rec.). May be designated Side-Show Entertainer (amuse. & rec.). May entertain in nightclubs and similar establishments. May entertain for live variety show or for television production.
GOE: 01.07.03 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

159.647-014 EXTRA (amuse. & rec.; motion picture; radio-tv broad.)

Performs as nonspeaking member of scene in stage, motion picture, or television productions: Stands, walks, or sits in scenes as background for stars actions, or performs actions requiring special skills, such as dancing, swimming, skating, riding, or handling livestock. Rehearses and performs pantomime, portraying points essential in staging of scene. Workers may be designated according to registration in union as General Extra (amuse. & rec.; motion picture; radio-tv broad.); Special Ability Extra (amuse. & rec.; motion picture; radio-tv broad.); Silent Bit Extra (amuse. & rec.; motion picture; radio-tv broad.).
GOE: 01.08.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

159.647-018 PSYCHIC READER (amuse. & rec.)

Entertains client or audience by professing to tell past, present, or future events through extraordinary spiritual insight or by perceiving another's thoughts. Designated according to specialty or medium used as Card Reader (amuse. & rec.); Crystal Gazer (amuse. & rec.); Fortune Teller (amuse. & rec.); Mind Reader (amuse. & rec.); Palmist (amuse. & rec.); Tea-Leaf Reader (amuse. & rec.).
GOE: 01.07.01 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

159.647-022 SHOW GIRL (amuse. & rec.)

Parades across stage to display costumes and provide background for chorus line to entertain audience.
GOE: 01.08.01 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

16 OCCUPATIONS IN ADMINISTRATIVE SPECIALIZATIONS

This division includes occupations concerned with specialized administrative and managerial functions which are common to many types of organizations. (Managerial occupations which are peculiar to one or a few related types of organizations are included in Division 18). In general, occupations included in the group listed below demand a knowledge of a particular function rather than a knowledge of the operations of an organization included in Division 18. Includes occupations which involve the more routine nonclerical duties or a combination of clerical and administrative work. Occupations involving clerical work exclusively in these fields are not included.

160 ACCOUNTANTS, AUDITORS, AND RELATED OCCUPATIONS

This group includes occupations concerned with examining, analyzing, and interpreting accounting records for the purpose of giving advice or preparing statements. It also includes occupations involved in devising or installing accounting systems and advising on cost-recording systems or other financial and budgetary data.

160.162-010 ACCOUNTANT, TAX (profess. & kin.)

Prepares federal, state, or local tax returns of individual, business establishment, or other organization: Examines accounts and records and computes taxes owed according to prescribed rates, laws, and regulations, using computer. Advises management regarding effects of business activities on taxes, and on strategies for minimizing tax liability. Ensures that establishment complies with periodic tax payment, information reporting, and other taxing authority requirements. Represents principal before taxing bodies. May devise and install tax record systems. May specialize in various aspects of tax accounting, such as tax laws applied to particular industry, or in individual, fiduciary, or partnership income tax preparation.
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 87

160.162-018 ACCOUNTANT (profess. & kin.)
Applies principles of accounting to analyze financial information and prepare financial reports: Compiles and analyzes financial information to prepare entries to accounts, such as general ledger accounts, documenting business transactions. Analyzes financial information detailing assets, liabilities, and capital, and prepares balance sheet, profit and loss statement, and other reports to summarize current and projected company financial position, using calculator or computer. Audits contracts, orders, and vouchers, and prepares reports to substantiate individual transactions prior to settlement. May establish, modify, document, and coordinate implementation of accounting and accounting control procedures. May devise and implement manual or computer-based system for general accounting. May direct and coordinate activities of other accountants and clerical workers performing accounting and bookkeeping tasks.
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 88

160.162-022 ACCOUNTANT, BUDGET (profess. & kin.)
Applies principles of accounting to analyze past and present financial operations and estimates future revenues and expenditures to prepare budget: Analyzes records of present and past operations, trends and costs, estimated and realized revenues, administrative commitments, and obligations incurred to project future revenues and expenses, using computer. Documents revenues and expenditures expected and submits to management. Maintains budgeting systems which provide control of expenditures made to carry out activities, such as advertising and marketing, production, maintenance, or to project activities, such as construction of buildings. Advises management on matters, such as effective use of resources and assumptions underlying budget forecasts. Interprets budgets to management. May develop and install manual or computer-based budgeting system. May assist in financial analysis of legislative projects to develop capital improvement budget and be designated Program Analyst (government ser.). May assist communities to develop budget and efficient use of funds and be designated Public Finance Specialist (government ser.)
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 89

160.162-026 ACCOUNTANT, COST (profess. & kin.)
Applies principles of cost accounting to conduct studies which provide detailed cost information not supplied by general accounting systems: Plans study and collects data to determine costs of business activity, such as raw material purchases, inventory, and labor. Analyzes data obtained and records results, using computer. Analyzes changes in product design, raw materials, manufacturing methods, or services provided, to determine effects on costs. Analyzes actual manufacturing costs and prepares periodic report comparing standard costs to actual production costs. Provides management with reports specifying and comparing factors affecting prices and profitability of products or services. May develop and install manual or computer-based cost accounting system. May specialize in analyzing costs relating to public utility rate schedule and be designated Rate Engineer (profess. & kin.). May specialize in appraisal and evaluation of real property or equipment for sale, acquisition, or tax purposes for public utility and be designated Valuation Engineer (profess. & kin.).
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 88

160.162-030 AUDITOR, DATA PROCESSING (profess. & kin.) alternate titles: auditor, information systems
Plans and conducts audits of data processing systems and applications to safeguard assets, ensure accuracy of data, and promote operational efficiency: Establishes audit objectives and devises audit plan, following general audit plan and previous audit reports. Interviews workers and examines records to gather data, following audit plan, and using computer. Analyzes data gathered to evaluate effectiveness of controls and determine accuracy of reports and efficiency and security of operations. Writes audit report to document findings and recommendations, using computer. Devises, writes, and tests computer program required to obtain information needed from computer for audit, using computer. Devises controls for new or modified computer application to prevent inaccurate calculations and data loss, and to ensure discovery of errors.
GOE: 11.06.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 89

160.167-022 ACCOUNTANT, PROPERTY (profess. & kin.)
Identifies and keeps record of company owned or leased equipment, buildings, and other property: Records description, value, location, and other pertinent information of each item. Conducts periodic inventories to keep records current and ensure that equipment is properly maintained. Distributes cost of maintenance to proper accounts. Examines records to determine that acquisition, sale, retirement, and other entries have been made. Prepares statements reflecting monthly appreciated and depreciated values. Summarizes statements on annual basis for income tax purposes. Prepares schedules for amortization of buildings and equipment. Develops and recommends property accounting methods to provide effective controls.
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

160.167-026 ACCOUNTANT, SYSTEMS (profess. & kin.) alternate titles: accounting-system expert
Devises and installs special accounting systems and related procedures in establishment which cannot use standardized system: Conducts survey of operations to ascertain needs of establishment. Sets up classification of accounts and organizes accounting procedures and machine methods support. Devises forms and prepares manuals required to guide activities of bookkeeping and clerical personnel who post data and keep records. May adapt conventional accounting and recordkeeping functions to machine accounting processes and be designated Accountant, Machine Processing (profess. & kin.).
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

160.167-030 AUDITOR, COUNTY OR CITY (government ser.)
Directs activities of personnel engaged in recording deeds and similar legal instruments, keeping records of county or municipal accounts, compiling and transmitting fiscal records to appropriate state officials, preparing financial statements of county or municipal finances for publication in local newspaper, and auditing books of city or county offices and departments. May be designated according to jurisdiction as City Auditor (government ser.); County Auditor (government ser.). In smaller communities or counties, may personally discharge all duties of office.
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 6 DLU: 77

160.167-034 AUDITOR, INTERNAL (profess. & kin.)
Conducts audits for management to assess effectiveness of controls, accuracy of financial records, and efficiency of operations: Examines records of departments and interviews workers to ensure recording of transactions and compliance with applicable laws and regulations. Inspects accounting systems to determine their efficiency and protective value. Reviews records pertaining to material assets, such as equipment and buildings, and staff to determine degree to which they are utilized. Analyzes data obtained for evidence of deficiencies in controls, duplication of effort, extravagance, fraud, or lack of compliance with laws, government regulations, and management policies or procedures. Prepares reports of findings and recommendations for management. May conduct special studies for management, such as those required to discover mechanics of detected fraud and to develop controls for fraud prevention. May audit employer business records for governmental agency to determine unemployment insurance premiums, liabilities, and employer compliance with state tax laws.
GOE: 11.06.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 89

160.167-038 AUDITOR, TAX (profess. & kin.)
Audits financial records to determine tax liability: Reviews information gathered from taxpayer, such as material assets, income, surpluses, liabilities, and expenditures to verify net worth or reported financial status and identify potential tax issues. Analyzes issues to determine nature, scope, and direction of investigation required. Develops and evaluates evidence of taxpayer finances to determine tax liability, using knowledge of interest and discount, annuities, valuation of stocks and bonds, sinking funds, and amortization valuation of depletable assets. Prepares written explanation of findings to notify taxpayer of tax liability. Advises taxpayer of appeal rights. May conduct on-site audits at taxpayer's place of business and be designated Field Auditor (government ser.). May audit individuals and small businesses through correspondence or by summoning taxpayer to branch office for interview and be designated Office Auditor (government ser.). May perform legal and accounting work in examination of records, tax returns, and related documents pertaining to tax settlement of decedent's estates and be designated Tax Analyst (government ser.). May review most complicated taxpayer accounts and be designated Tax Examiner (government ser.).
GOE: 11.06.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

160.167-042 BURSAR (education)
Directs and coordinates activities of workers engaged in keeping complete books of tuition fees and other receipts for educational institution. Periodically reports receipts to board of trustees or other body ultimately responsible for financial condition of institution.
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

160.167-046 CHIEF BANK EXAMINER (government ser.)
Directs investigation of financial institutions for state or federal regulatory agency to enforce laws and regulations governing establishment, operation, and solvency of financial institutions: Schedules audits according to departmental policy, availability of personnel, and financial condition of institution. Evaluates examination reports to determine action required to protect solvency of institution and interests of shareholders and depositors. Confers with financial advisors and other regulatory officials to recommend or initiate action against banks failing to comply with laws and regulations. Confers with officials of financial institutions industry to exchange views and discuss issues. Reviews application for merger, acquisition, establishment of new institution, acceptance in Federal Reserve System, or other action, and evaluates results of investigations undertaken to determine whether such action is in public interest. Recommends acceptance or rejection of application on basis of findings.
GOE: 11.10.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

160.167-050 REVENUE AGENT (government ser.)
Conducts independent field audits and investigations of federal income tax returns to verify or amend tax liabilities: Examines selected tax returns to determine nature and extent of audits to be performed. Analyzes accounting books and records to determine appropriateness of accounting methods employed and compliance with statutory provisions. Investigates documents, financial transactions, operation methods, industry practices and such legal instruments as vouchers, leases, contracts, and wills, to develop information regarding inclusiveness of accounting records and tax returns. Confers with taxpayer or representative to explain issues involved and applicability of pertinent tax laws and regulations. [Workers who investigate and collect federal tax delinquencies are defined under REVENUE OFFICER (government ser.).] Secures taxpayer's agreement to discharge tax assment or submits contested determination to other administrative or judicial conferees for appeals hearings. May participate in informal appeals hearings on contested cases from other agents. May serve as

member of regional appeals board to reexamine unresolved issues in terms of relevant laws and regulations and be designated Appellate Conferee (government ser.).
GOE: 11.06.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

160.167-054 AUDITOR (profess. & kin.)
Examines and analyzes accounting records to determine financial status of establishment and prepares financial reports concerning operating procedures: Reviews data regarding material assets, net worth, liabilities, capital stock, surplus, income, and expenditures. Inspects items in books of original entry to determine if accepted accounting procedure was followed in recording transactions. Counts cash on hand, inspects notes receivable and payable, negotiable securities, and cancelled checks. Verifies journal and ledger entries of cash and check payments, purchases, expenses, and trial balances by examining and authenticating inventory items. Prepares reports for management concerning scope of audit, financial conditions found, and source and application of funds. May make recommendations regarding improving operations and financial position of company. May supervise and coordinate activities of auditors specializing in specific operations of establishments undergoing audit. May audit banks and financial institutions and be designated Bank Examiner (government ser.). May examine company payroll and personnel records to determine worker's compensation coverage and be designated Payroll Auditor (insurance).
GOE: 11.06.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 81

160.167-058 CONTROLLER (profess. & kin.) alternate titles: comptroller
Directs financial activities of organization or subdivision of organization: Prepares, using computer or calculator, or directs preparation of, reports which summarize and forecast company business activity and financial position in areas of income, expenses, and earnings, based on past, present, and expected operations. Directs determination of depreciation rates to apply to capital assets. Establishes, or recommends to management, major economic objectives and policies for company or subdivision. May manage accounting department. May direct preparation of budgets. May prepare reports required by regulatory agencies. May advise management on desirable operational adjustments due to tax code revisions. May arrange for audits of company accounts. May advise management about property and liability insurance coverage needed. May direct financial planning, procurement, and investment of funds for organization [TREASURER (profess. & kin.) 161.117-018].
GOE: 11.06.02 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 88

160.207-010 CREDIT COUNSELOR (profess. & kin.)
Provides financial counseling to individuals in debt: Confers with client to ascertain available monthly income after living expenses to meet credit obligations. Calculates amount of debt and funds available to plan method of payoff and estimate time for debt liquidation. Contacts creditors to explain client's financial situation and to arrange for payment adjustments so that payments are feasible for client and agreeable to creditors. Establishes payment priorities to reduce client's overall costs by liquidating high-interest, short-term loans or contracts first. Opens account for client and disburses funds from account to creditors as agent for client. Keeps records of account activity. May counsel client on personal and family financial problems, such as excessive spending and borrowing of funds, and be designated Budget Consultant (profess. & kin.). May be required to be licensed by state agency.
GOE: 07.01.01 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

160.267-014 DIRECTOR, UTILITY ACCOUNTS (government ser.)
Evaluates financial condition of electric, telephone, gas, water, and public transit utility companies to facilitate work of regulatory commissions in setting rates: Analyzes annual reports, financial statements, and other records submitted by utility companies, applying accepted accounting and statistical analysis procedures to determine current financial condition of company. Evaluates reports from commission staff members and field investigators regarding condition of company property and other factors influencing solvency and profitability of company. Prepares and presents exhibits and testifies during commission hearings on regulatory or rate adjustments. Confers with company officials to discuss financial problems and regulatory matters. Directs workers engaged in filing company financial records. May conduct specialized studies, such as cost of service, revenue requirement, and cost allocation studies for commission, or design new rates in accordance with findings of commission and be designated Rate Analyst (government ser.).
GOE: 11.06.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

160.267-022 CREDIT ANALYST (financial)
Analyzes credit information to determine risk involved in lending money to commercial customers, and prepares report of findings: Selects information, including company financial statements and balance sheet and records data on spreadsheet, using computer. Enters codes for computer program to generate ratios for use in evaluating commercial customer's financial status. Compares items, such as liquidity, profitability, credit history, and cash, with other companies of same industry, size, and geographic location. Analyzes such factors as income growth, quality of management, market share, potential risks of industry, and collateral appraisal. Writes offering sheet (loan application), including results of credit analysis and summary of loan request. Describes credit risk and amount of loan profit. Submits offering sheet to loan committee for decision. May visit company to collect information as part of analysis.
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

160.267-026 INVESTMENT ANALYST (financial; insurance) alternate titles: securities analyst; securities-research analyst
Analyzes financial information to forecast business, industry, and economic conditions, for use in making investment decisions: Gathers and analyzes company financial statements, industry, regulatory and economic information, and financial periodicals and newspapers. Interprets data concerning price, yield, stability, and future trends of investments. Summarizes data describing current and long term trends in investment risks and economic influences pertinent to investments. Draws charts and graphs to illustrate reports, using computer. Recommends investment timing and buy-and-sell orders to company or to staff of investment establishment for advising clients. May call brokers and purchase investments for company, according to company policy. May recommend modifications to management's investment policy. May specialize in specific investment area, such as bond, commodity, equity, currency, or portfolio management.
GOE: 11.06.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 89

161 BUDGET AND MANAGEMENT SYSTEMS ANALYSIS OCCUPATIONS

This group includes occupations concerned with reviewing, examining, and evaluating the organizational structures, administrative policies, and management systems of organizations, such as governmental units, industrial concerns, business firms, and nonprofit groups. Includes the preparation of reports summarizing findings and recommending to line management changes in organization, programs, methods, policies, procedures, or practices concerning such management systems as budget forecasting and records and information management. Includes consolidating the budget estimates of several organizational units and preparing a unitary budget itemizing production costs, for consideration and action by upper echelons of management.

161.117-010 BUDGET OFFICER (profess. & kin.)
Directs and coordinates activities of personnel responsible for formulation, monitoring and presentation of budgets for controlling funds to implement program objectives of public and private organizations: Directs compilation of data based on statistical studies and analyses of past and current years to prepare budgets and to justify funds requested. Correlates appropriations for specific programs with appropriations for divisional programs and includes items for emergency funds. Reviews operating budgets periodically to analyze trends affecting budget needs. Consults with unit heads to ensure adjustments are made in accordance with program changes in order to facilitate long-term planning. Directs preparation of regular and special budget reports to interpret budget directives and to establish policies for carrying out directives. Prepares comparative analyses of operating programs by analyzing costs in relation to services performed during previous fiscal years and submits reports to director of organization with recommendations for budget revisions. Testifies regarding proposed budgets before examining and fund-granting authorities to clarify reports and gain support for estimated budget needs. Administers personnel functions of budget department, such as training, work scheduling, promotions, transfers, and performance ratings.
GOE: 11.06.05 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 87

161.117-014 DIRECTOR, RECORDS MANAGEMENT (profess. & kin.)
Plans, develops, and administers records management policies designed to facilitate effective and efficient handling of business records and other information: Plans development and implementation of records management policies intended to standardize filing, protecting, and retrieving records, reports, and other information contained on paper, microfilm, computer program, or other media. Coordinates and directs, through subordinate managers, activities of departments involved with records management analysis, reports analysis, and supporting technical, clerical micrographics, and printing services. Evaluates staff reports, utilizing knowledge of principles of records and information management, administrative processes and systems, cost control, governmental recordkeeping requirements, and organizational objectives. Confers with other administrators to assure compliance with policies, procedures, and practices of records management program.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

161.117-018 TREASURER (profess. & kin.) alternate titles: treasury representative
Directs financial planning, procurement, and investment of funds for an organization: Delegates authority for receipt, disbursement, banking, protection and custody of funds, securities, and financial instruments. Analyzes financial records to forecast future financial position and budget requirements. Evaluates need for procurement of funds and investment of surplus. Advises management on investments and loans for short- and long-range financial plans. Prepares financial reports for management. Develops policies and procedures for account collections and extension of credit to customers. Signs notes of indebtedness as approved by management. May act as CONTROLLER (profess. & kin.) 160.167-058.
GOE: 11.06.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

161.167-010 MANAGEMENT ANALYST (profess. & kin.) alternate titles: systems analyst
Analyzes business or operating procedures to devise most efficient methods of accomplishing work: Plans study of work problems and procedures, such as

organizational change, communications, information flow, integrated production methods, inventory control, or cost analysis. Gathers and organizes information on problem or procedures including present operating procedures. Analyzes data gathered, develops information and considers available solutions or alternate methods of proceeding. Organizes and documents findings of studies and prepares recommendations for implementation of new systems, procedures or organizational changes. Confers with personnel concerned to assure smooth functioning of newly implemented systems or procedure. May install new systems and train personnel in application. May conduct operational effectiveness reviews to ensure functional or project systems are applied and functioning as designed. May develop or update functional or operational manuals outlining established methods of performing work in accordance with organizational policy.
GOE: 05.01.06 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 89

161.167-014 MANAGER, FORMS ANALYSIS (profess. & kin.)
Directs and coordinates activities of workers involved with analyzing business forms: Plans and directs compilation and updating of cost and control records, utilizing knowledge of forms inventories, usage, and operating practices. Coordinates activities of personnel engaged in forms analysis, such as format design, increasing content effectiveness, and reducing production and processing costs. Plans and directs activities of workers involved in identifying form deficiencies and recommending solution, utilizing knowledge of principles and techniques of records management, government recordkeeping requirements, printing and microfilm processes, and cost specifications. Analyzes and evaluates staff recommendations and approves implementation of change, utilizing knowledge of forms analysis and standardization, managerial processes and systems, budgetary limitations, and organizational policies and procedures.
GOE: 11.06.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

161.167-018 MANAGER, RECORDS ANALYSIS (profess. & kin.)
Directs and coordinates activities of workers involved with analyzing systems of records management: Plans and directs compilation and updating of cost and control records, utilizing knowledge of records inventories, usage, costs, and operating practices. Coordinates activities of personnel engaged in studying such matters as simplification of filing and retrieval systems, protection of vital records and economical utilization of paper, microfilm, computer program, or other information-bearing media according to organizational and governmental recordkeeping schedules and requirements. Analyzes and evaluates staff reports and approves implementation of recommendations, utilizing knowledge of principles and techniques of records and information management, managerial processes and systems, budgetary limitations and organizational policies and procedures.
GOE: 11.06.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

161.167-022 MANAGER, REPORTS ANALYSIS (profess. & kin.)
Directs and coordinates activities of workers involved with analysis of business reports: Plans and directs compilation and updating of cost and control records, utilizing knowledge of reports inventories, usage, cost, distribution, frequency, and operating practices. Coordinates activities of personnel engaged in reports analysis, such as determining necessity of report, simplification of reports format, increasing content effectiveness, and reduction of processing costs. Plans and directs activities intended to develop new or revised reports format, utilizing knowledge of principles and techniques of information and documents management, vital records protection, and cost-control practices. Analyzes and evaluates staff recommendations and approves implementation of changes, utilizing knowledge of reports analysis and standardization, managerial processes and systems, budgetary limitations, and organizational policies and procedures.
GOE: 11.06.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

161.267-010 CLERICAL-METHODS ANALYST (profess. & kin.)
Examines and evaluates clerical work methods to develop new or improved standardized methods and procedures: Interviews clerical workers and supervisory personnel and conducts on-site observation to ascertain unit functions, work performed, methods and equipment used, and personnel involved. Sketches office layout to show location of equipment required for originating, processing, and filing business records and information. Confers with managerial personnel to obtain suggestions for improvements, such as modifying existing procedures, using alternate work method, or introducing new business forms, reports standards, or coding system. Evaluates findings, using knowledge of principles and techniques of work simplification, governmental record keeping requirements, and company policies to recommend methods or equipment intended to improve clerical operations. May prepare training manuals and train clerical workers in new procedure or operation and maintenance of machines and equipment. May assist in preparation of job descriptions or specifications. May specialize in one phase of clerical methods analysis, such as filing, workflow, or coding systems. May be designated according to location where work is performed as in-house staff or customer field-representative.
GOE: 05.01.06 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

161.267-018 FORMS ANALYST (profess. & kin.)
Examines and evaluates format and function of business forms to develop new, or improve existing forms format, usage, and control: Reviews forms to evaluate need for revision, consolidation, or discontinuation, using knowledge of form use, workflow, document flow, and compatibility with manual or machine processing. Confers with form users to gather recommendations for improvements, considering such characteristics as form necessity, completeness, design, text, and specifications as to size and color of paper, style of typeface, and number of copies. May design, draft or prepare finished master copy for new or modified form, or confer with printer's representative to specify changes in format and approve proof copies. Prepares and issues written instructions for use of forms in accordance with organizational policies, procedures, and practices. Keeps records to update information concerning form origin, function, necessity, usage, cost, and stock level.
GOE: 11.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

161.267-022 RECORDS-MANAGEMENT ANALYST (profess. & kin.)
Examines and evaluates records-management systems to develop new or improve existing methods for efficient handling, protecting, and disposing of business records and information: Reviews records and reports to ascertain media (paper, microfilm, or computer tape) used, reproduction process, or electronic data processing involved. Drafts office and storage area layout to plot location of equipment and to compute space available. Confers with clerical and supervisory personnel to gather suggestions for improvements and to detect records-management problems. Reviews records retention schedules and governmental recordkeeping requirements to determine timetables for transferring active records to inactive or archival storage, for reducing paper records to micrographic form, or for destroying obsolete or unnecessary records. Evaluates findings and recommends changes or modifications in procedures, utilizing knowledge of functions of operating units, coding systems and filing methods. Recommends purchase of storage, retrieval, or disposal equipment according to knowledge of equipment capability and cost.
GOE: 11.06.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

161.267-026 REPORTS ANALYST (profess. & kin.)
Examines and evaluates purpose and content of business reports to develop new, or improve existing format, use, and control: Reviews reports to determine basic characteristics, such as origin and report flow, format, frequency, distribution and purpose or function of report. Confers with persons originating, handling, processing, or receiving reports to identify problems and to gather suggestions for improvements. Evaluates findings, using knowledge of workflow, operating practices, records retention schedules, and office equipment layout. Recommends establishment of new or modified reporting methods and procedures to improve report content and completeness of information. May prepare and issue instructions concerning generation, completion, and distribution of reports according to new or revised practices, procedures, or policies of reports management.
GOE: 11.06.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

161.267-030 BUDGET ANALYST (government ser.)
Analyzes current and past budgets, prepares and justifies budget requests, and allocates funds according to spending priorities in governmental service agency: Analyzes accounting records to determine financial resources required to implement program and submits recommendations for budget allocations. Recommends approval or disapproval of requests for funds. Advises staff on cost analysis and fiscal allocations.
GOE: 11.06.05 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 86

162 PURCHASING MANAGEMENT OCCUPATIONS

This group includes occupations concerned with negotiating and contracting for the purchase of equipment, products, and supplies for industrial plants, utilities, governmental units, or other establishments, and the purchasing of merchandise for resale; determining quantity and quality to be purchased, costs, delivery dates, contract conditions, sources of supply, and taking inventories.

162.117-010 CHRISTMAS-TREE CONTRACTOR (any industry) alternate titles: field technician
Contacts landowners to negotiate purchase of Christmas trees and arranges with contractors to cut trees: Contacts owners of forest lands prior to cutting season to negotiate contracts for purchase of trees. Surveys stumpage (standing timber) to determine approximate tree yield and informs property owner of types and sizes of trees desired. Confers with cutting contractors to arrange for cutting trees on leased lands and establishes piecework rate based on grade and size of trees cut. May supervise operations in district during cutting season.
GOE: 08.01.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

162.117-014 CONTRACT ADMINISTRATOR (any industry)
Directs activities concerned with contracts for purchase or sale of equipment, materials, products, or services: Examines performance requirements, delivery schedules, and estimates of costs of material, equipment, and production to ensure completeness and accuracy. Prepares bids, process specifications, test and progress reports, and other exhibits that may be required. Reviews bids from other firms for conformity to contract requirements and determines acceptable bids. Negotiates contract with customer or bidder. Requests or approves amendments to or extensions of contracts. Advises planning and production departments of contractual rights and obligations. May compile data for preparing estimates. May coordinate work of sales department with production and shipping department to implement fulfillment of contracts. May act as liaison between company and subcontractors. May direct sales program [MANAGER, SALES (any industry) 163.167-018].
GOE: 11.12.04 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 86

162.117-018 CONTRACT SPECIALIST (profess. & kin.) alternate titles: contract coordinator
Negotiates with suppliers to draw up procurement contracts: Negotiates, administers, extends, terminates, and renegotiates contracts. Formulates and co

ordinates procurement proposals. Directs and coordinates activities of workers engaged in formulating bid proposals. Evaluates or monitors contract performance to determine necessity for amendments or extensions of contracts, and compliance to contractual obligations. Approves or rejects requests for deviations from contract specifications and delivery schedules. Arbitrates claims or complaints occurring in performance of contracts. Analyzes price proposals, financial reports, and other data to determine reasonableness of prices. May negotiate collective bargaining agreements. May serve as liaison officer to ensure fulfillment of obligations by contractors.
GOE: 11.12.04 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 87

162.117-022 FIELD CONTRACTOR (any industry)
Negotiates contracts with growers to raise or purchase crops, such as fruits and vegetables, performing any combination of the following duties: Contacts grower to negotiate contracts and to explain terms and conditions of contract and contractual responsibilities. Determines production possibilities of land by studying data, such as history of crop rotation, type and fertility of soil, location, topography, and irrigation facilities. Negotiates amount of acreage to be planted or purchased and selects fields to be planted. Advises grower on preparing land, planting, cultivating, thinning, harvesting, and related problems. Supplies seed and fertilizer. May estimate crop yield. Arranges for financing and advances funds to purchase supplies and equipment or services of contractor. May arrange for loans of company-owned machinery. Arranges for transportation of crops to processing plants. Inspects growing crops for evidence of disease and insect damage and recommends corrective measures. May assist in recruiting extra labor during peak seasons. May conduct lectures for farm groups on specific phases of agricultural activities. May write articles for publication and for scientific groups. May specialize in one crop and be designated according to crop bought.
GOE: 03.01.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

162.117-026 FIELD-CONTACT TECHNICIAN (dairy products)
Contacts dairy farmers to negotiate contracts for purchase of dairy products and to discuss methods for improving milk production. Negotiates with farmers for long-term contracts to purchase milk or cream of specified butterfat content. Discusses milk production problems and tests milk for butterfat content, sediment, and bacteria. Suggests methods of feeding, housing, and milking to improve production and to comply with sanitary regulations. May set up truck routes to haul milk to dairy. May solicit memberships in cooperative association. May sell items, such as dairy farm equipment, chemicals, and feed.
GOE: 08.01.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

162.117-030 RESEARCH-CONTRACTS SUPERVISOR (government ser.)
Directs activities of workers engaged in negotiating and servicing research contracts with universities and other institutions conducting research projects for federal agencies. Evaluates contract proposals and directs awarding of contracts according to knowledge of contract law and other fields, such as engineering development and metallurgical laboratory techniques, depending on nature of project.
GOE: 11.12.04 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

162.157-010 BROKER-AND-MARKET OPERATOR, GRAIN (financial; wholesale tr.) alternate titles: grain trader
Buys and sells grain on commission, for customers, through commodity exchange: Advises customers on probable price changes and factors which may affect prices, such as crop carryover, normal grain production and consumption, foreign and domestic crop conditions, and price differentials among various grades of grains. Notifies customer when additional margin is required because of price fluctuations and governmental regulations. May buy and sell grain futures for customer or brokerage firm and be designated Buyer Grain (wolesale tr.).
GOE: 11.06.04 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

162.157-018 BUYER (profess. & kin.) alternate titles: broker
Purchases merchandise or commodities for resale: Inspects and grades or appraises agricultural commodities, durable goods, apparel, furniture, livestock, or other merchandise offered for sale to determine value and yield. Selects and orders merchandise from showings by manufacturing representatives, growers, or other sellers, or purchases merchandise on open market for cash, basing selection on nature of clientele, or demand for specific commodity, merchandise, or other property, utilizing knowledge of various articles of commerce and experience as buyer. Transports purchases or contacts carriers to arrange transportation of purchases. Authorizes payment of invoices or return of merchandise. May negotiate contracts for severance of agricultural or forestry products from land. May conduct staff meetings with sales personnel to introduce new merchandise. May price items for resale. May be required to be licensed by state. May be identified according to type of commodities, merchandise, or goods purchased.
GOE: 08.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 86

162.157-022 BUYER, ASSISTANT (retail trade)
Performs following duties in connection with purchase and sale of merchandise to aid BUYER (profess. & kin.): Verifies quantity and quality of stock received from manufacturer. Authorizes payment of invoices or return of shipment. Approves advertising copy for newspaper. Gives MARKERS (retail trade; wholesale tr.) information, such as price mark-ups or mark-downs, manufacturer number, season code, and style number to print on price tickets. Inspects exchanged or refunded merchandise. May sell merchandise to become familiar with customers' attitudes, preferences, and purchasing problems.
GOE: 08.01.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

162.157-026 COMMISSION AGENT, LIVESTOCK (wholesale tr.)
Sells livestock at stockyards as agent for owner: Receives, appraises, and sorts livestock according to factors, such as weight, sex, age, and appearance, to determine value and facilitate sale. Contacts purchasing agents and informs them of livestock available for sale. Shows livestock to buyers and receives bids. Informs interested buyers of other bids received. Sells livestock to highest bidder. May purchase livestock as agent for farmer. May specialize in purchase of one species of livestock.
GOE: 08.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

162.157-030 OUTSIDE PROPERTY AGENT (motion picture) alternate titles: buyer-renter
Locates and arranges for purchase or rental of props specified for use in motion pictures when such props are not in studio stock and are not to be constructed by studio personnel. May purchase stock, such as lumber, to be used in fabrication of props.
GOE: 08.01.03 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

162.157-034 PROCUREMENT ENGINEER (aircraft mfg.)
Develops specifications and performance test requirements to facilitate procurement of parts and equipment for aeronautical and aerospace products: Analyzes technical data, designs, preliminary specifications, manufacturing limitations, supplier facilities, and availability of parts and equipment. Consults with engineering personnel to establish performance criteria and specifications for manufacturing and testing. Investigates potential suppliers and recommends those most desirable. Advises company personnel, suppliers, and customers of nature and function of parts and equipment. Interviews supplier representatives regarding specifications, costs, inspection, and similar problems relating to parts and equipment. Arranges and participates in conferences between suppliers and engineers, purchasers, inspectors, and other company personnel to facilitate material inspection, substitution, standardization, rework, salvage, utilization, and economical procurement of parts and equipment installed in aircraft, spacecraft, or related products.
GOE: 05.03.03 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 89

162.157-038 PURCHASING AGENT (profess. & kin.) alternate titles: buyer
Coordinates activities involved with procuring goods and services, such as raw materials, equipment, tools, parts, supplies, and advertising, for establishment: Reviews requisitions. Confers with vendors to obtain product or service information, such as price, availability, and delivery schedule. Selects products for purchase by testing, observing, or examining items. Estimates values according to knowledge of market price. Determines method of procurement, such as direct purchase or bid. Prepares purchase orders or bid requests. Reviews bid proposals and negotiates contracts within budgetary limitations and scope of authority. Maintains manual or computerized procurement records, such as items or services purchased, costs, delivery, product quality or performance, and inventories. Discusses defective or unacceptable goods or services with inspection or quality control personnel, users, vendors, and others to determine source of trouble and take corrective action. May approve invoices for payment. May expedite delivery of goods to users.
GOE: 11.05.04 STRENGTH: L GED: R4 M5 L4 SVP: 7 DLU: 87

162.167-010 BUYER, GRAIN (grain-feed mills; wholesale tr.) alternate titles: grain-elevator agent; manager, grain elevator
Manages grain elevator: Examines samples to determine extent of dirt, burrs, hulls, seeds, and other dockage. Extracts samples and forwards them to local grain exchange for analysis and certification of moisture and protein content. Reviews analysis to ascertain amount of moisture and protein present in sample. Calculates market value and bargains with sellers to obtain grain at favorable price: Buys grain or issues storage certificates. Computes shipping cost to determine most economical way of transporting grain. Reviews and approves grain settlements to ensure that payments are made according to weight, moisture, and protein content. Keeps daily records on kinds and grades of grain received, prices paid, amount purchased, and amount in storage. Directs workers engaged in unloading, loading, storing, and mixing of grain for shipment and milling.
GOE: 08.01.03 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 77

162.167-014 BUYER, TOBACCO, HEAD (wholesale tr.) alternate titles: buyer, head; circuit rider; circuit walker
Coordinates activities of workers engaged in buying tobacco on auction warehouse floor: Tells BUYER (profess. & kin.) which grades and quantities of tobacco to buy and prices to be paid, and observes purchases for conformance to company regulations. May buy tobacco on auction market. May inspect and regrade tobacco in processing plant.
GOE: 08.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

162.167-018 CLEAN-RICE BROKER (grain-feed mills) alternate titles: milled-rice broker
Coordinates rice buying and milling operations with demand and sells clean (milled) rice on domestic and foreign markets: Contacts prospective purchasers, sends or displays samples of grades and varieties of rice offered for sale, states selling price, and arranges sales. Ascertains from orders, quantity and varieties of rice required, and notifies buyers purchasing rice from growers. Prepares instructions for operating personnel of lots of rice to be milled and sequence and method of milling. Directs workers keeping records and preparing contracts and shipping data.

GOE: 11.05.04 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

162.167-022 MANAGER, PROCUREMENT SERVICES (profess. & kin.) alternate titles: director, procurement services; manager, material control

Directs and coordinates activities of personnel engaged in purchasing and distributing raw materials, equipment, machinery, and supplies in industrial plant, public utility, or other organization: Prepares instructions regarding purchasing systems and procedures. Prepares and issues purchase orders and change notices to PURCHASING AGENTS (profess. & kin.). Analyzes market and delivery conditions to determine present and future material availability and prepares market analysis reports. Reviews purchase order claims and contracts for conformance to company policy. Develops and installs clerical and office procedures and practices, and studies work flow, sequence of operations, and office arrangement to determine expediency of installing new or improved office machines. Arranges for disposal of surplus materials.
GOE: 11.05.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

162.167-026 PRIZE COORDINATOR (radio-tv broad.)

Coordinates use of assorted merchandise for prizes on television game shows: Verifies receipt and accuracy of manufacturer's contract guaranteeing availability of promised merchandise. Sends contract to network for approval. Prepares and sends details of contract (fact sheet), with mounted pictures of manufacturer's products (flip cards), to production company for approval. Inspects flip cards and display merchandise before show is taped to verify their match with prepared script. Views taping of shows to verify promotional use of merchandise and records each episode's winners. Writes status reports for all merchandise used on shows, including amount of contestants' gratuitous awards and type and retail value of merchandise advertised and won during each episode. Obtains contestants' signatures on contestant prize forms after each show and gives written rules and instructions to winners for receiving and using prizes. Notifies manufacturers, or their representatives, of date taped show will be telecast, including names of winners and prizes awarded. Contacts manufacturers to assist winners in resolving complaints about prizes. May solicit use of manufacturer's product. May assist production company in selecting prizes for each taped episode.
GOE: 07.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

162.167-030 PURCHASE-PRICE ANALYST (profess. & kin.)

Compiles and analyzes statistical data to determine feasibility of buying products and to establish price objectives for contract transactions: Compiles information from periodicals, catalogs, and other sources to keep informed on price trends and manufacturing processes. Obtains data for cost analysis studies by determining manufacturing costs within divisions of company. Confers with vendors and analyzes vendor's operations to determine factors that affect prices. Prepares reports, charts, and graphs of findings. Evaluates findings and makes recommendations to purchasing personnel regarding feasibility of manufacturing or buying needed products. May recommend use of alternative parts, materials, or manufacturing methods to reduce costs.
GOE: 11.06.03 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

162.167-034 FLOOR BROKER (financial) alternate titles: broker; floor representative; floor trader; trader

Buys and sells securities on floor of securities exchange: Analyzes market conditions and trends to determine best time to execute securities transaction orders. Buys and sells securities based on market quotation and competition in market. Informs REGISTERED REPRESENTATIVE (financial) 250.257-018 of market fluctuations and securities transactions affecting accounts. Must meet exchange requirements, which may include state license, to be member of exchange. May specialize in trading specific securities to stabilize market and be designated Independent Trader (financial) or Specialist (financial).
GOE: 11.06.04 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 90

162.167-038 SECURITIES TRADER (financial) alternate titles: broker; trader

Purchases and sells securities for brokerage firm: Receives sales order ticket from REGISTERED REPRESENTATIVE (financial) 250.257-018, and inspects form to ensure accuracy of information. Contacts market maker (securities exchange or brokerage firm that is trading requested securities) to execute client orders for purchase or sale of securities, or completes transaction independently if brokerage firm is market maker in requested securities. Writes and signs sales order confirmation forms to record and approve securities transactions. Reviews all securities transactions to ensure that trades conform to regulations of Securities and Exchange Commission, National Association of Securities Dealers, and other government agencies. Must pass state examination to receive license and become registered to trade securities. May prepare financial reports to monitor corporate finances. May have management or supervisory responsibility for department employees. May provide clients with information on investments, and sell securities and other financial services [REGISTERED REPRESENTATIVE (financial)].
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 89

162.267-010 TITLE CLERK (petrol. & gas; petrol. refin.; pipe lines)

Procures testimonial documents required to remove restrictions affecting title of landowners to property, and requisitions purchase orders and bank checks to satisfy requirements of contracts and agreements covering lease or purchase of land and gas, oil, and mineral rights: Examines leases, contracts, and purchase agreements to assure conformity to specified requirements. Examines abstract to assure complete title-coverage of land described, completeness of land description, and to detect lapses of time in abstract coverage of landowner's title. Prepares correspondence and other records to transmit leases and abstracts. Reviews title opinion to determine nature of testimonial documents needed to meet legal objections and to assure accuracy in terms of trade. Confers with personnel of abstract company, landowners, and LEASE BUYERS (mine & quarry; petrol. & gas) to explain reasons for and to obtain testimonial documents needed to clear title. Prepares or requests deeds, affidavits, and other documents and transmits them to appropriate persons for execution to meet title requirements. Investigates whether delinquent taxes are due on land involved in agreements and confers or corresponds with landowner to assure payment. Verifies computations of fees, rentals, bonuses, brokerage commissions and other expenses and prepares records to initiate requests for payment. Prepares purchase data sheet for records unit covering each trade or exchange. Answers queries regarding leases and contracts by mail, telephone, or personal discussion.
GOE: 07.01.05 STRENGTH: S GED: R5 M4 L5 SVP: 6 DLU: 77

163 SALES AND DISTRIBUTION MANAGEMENT OCCUPATIONS

This group includes occupations concerned with managing sales and marketing for a manufacturer, retail or wholesale house, jobber, or other establishment. Includes market research and analysis; establishing and managing a sales organization; and evaluating sales statistics and reports.

163.117-010 MANAGER, CONTRACTS (petrol. & gas; petrol. refin.; pipe lines) alternate titles: supply representative, petroleum products

Negotiates contracts with representatives of oil producers, refiners, and pipeline carriers for purchase, sale, or delivery of crude oil, petroleum distillates, and natural gas and gasoline: Analyzes records of petroleum supply sources, movements of materials from plants to refineries, and current and prospective refinery demands. Coordinates work of sales, production, and shipping departments to implement procurance of products in accordance with refinery needs. Performs liaison work with engineering and production departments concerning contractual rights and obligations. May manage contracts for entire company, department, or for specified product, such as crude oil or natural gas. May be designated according to product contracted as Supply Representative, Dry Gas (petrol. & gas; petrol. refin.; pipe lines); Manager, Natural-Gas Utilization (petrol. & gas).
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

163.117-014 MANAGER, EXPORT (any industry)

Directs foreign sales and service outlets of an organization: Negotiates contracts with foreign sales and distribution centers to establish outlets. Directs clerical staff in expediting export correspondence, bid requests, and credit collections. Directs conversion of products from American to foreign standards and specifications to ensure efficient operation under foreign conditions. Arranges shipping details, such as export licenses, customs declarations, and packing, shipping, and routing of product. Directs clerical and technical staff in preparation of foreign language sales manuals. Expedites import-export arrangements and maintains current information on import-export tariffs, licenses, and restrictions.
GOE: 11.05.04 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

163.117-018 MANAGER, PROMOTION (hotel & rest.) alternate titles: director, sales; manager, business promotion; manager, sales

Plans and administers sales policies and programs to foster and promote hotel patronage: Consults newspapers, trade journals, and other publications to learn about contemplated conventions and social functions. Organizes prospect files by listing information, such as names of officials and plans for conventions, to be used for promotional purposes. Directs workers engaged in preparing promotional correspondence with travel bureaus, business and social groups. Confers with department heads to discuss and formulate plans for soliciting business. Contacts executives of organizations to explain services and facilities offered by hotel and to solicit their business. Supervises and trains service representatives. Plans and prepares advertising and promotional material and arranges for newspaper and other publicity.
GOE: 11.09.01 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 77

163.117-022 DIRECTOR, MEDIA MARKETING (radio-tv broad.)

Plans and administers marketing and distribution of broadcasting television programs and negotiates agreements for ancillary properties, such as copyrights and distribution rights for films and audiovisual materials: Reviews inventory of television programs and films produced and distribution rights of broadcasting station to determine potential markets. Develops marketing strategy, based on knowledge of establishment policy, nature of market, copyright and royalty requirements, and cost and markup factors. Compiles catalog of audiovisual offerings and sets prices and rental fees. Negotiates with media agents to secure agreements for translation of materials into other media. Arranges for reproduction of materials for distribution and examines reproductions for conformity to standards. Edits materials according to specific market or customer requirements. Confers with legal staff to resolve problems, such as copyrights and royalty sharing with outside producers and distributors.
GOE: 11.05.04 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 86

163.117-026 DIRECTOR, UNDERWRITER SOLICITATION (radio-tv broad.) alternate titles: director, underwriter sales

Plans and directs activities to secure and maintain underwriting (funding) of public television or radio programming: Reviews reports, periodicals, and other materials to identify prospective funding sources for proposed broadcast programs. Directs and counsels subordinates in developing strategies to secure program funding and negotiates final agreements with funding establishment representatives. Serves as liaison between station's legal, programming, public information, and other departmental staff and funding establishment personnel to provide information on status of projects and to resolve problems. May specialize in solicitation of funding from government, foundation, or corporation sources.

GOE: 11.05.04 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 86

163.167-010 MANAGER, ADVERTISING (print. & pub.)

Directs sale of display and classified advertising services for a publication: Plans sales campaigns. Consults with department heads and other officials to plan special campaigns and to promote sale of advertising services to various industry or trade groups. Corresponds with customers relative to advertising rates and policies, or to solicit new business. May select and train new sales personnel. May be designated according to type of advertising sold as Manager, Classified Advertising (print. & pub.); Manager, Display Advertising (print. & pub.); or area or region served as Manager, Local Advertising (print. & pub.); Manager, National Advertising (print. & pub.).

GOE: 11.09.01 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

163.167-014 MANAGER, CIRCULATION (print. & pub.)

Directs sale and distribution of newspapers, books, and periodicals: Directs staffing, training, and performance evaluations to develop and control sales and distribution program. Establishes geographical areas of responsibility for subordinates to coordinate sales and distribution activities. May be designated according to type of circulation activity managed as Manager, Newspaper Circulation (print. & pub.); or area served as Manager, City Circulation (print. & pub.).

GOE: 11.05.04 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

163.167-018 MANAGER, SALES (any industry)

Manages sales activities of establishment: Directs staffing, training, and performance evaluations to develop and control sales program. Coordinates sales distribution by establishing sales territories, quotas, and goals and advises dealers, distributors, and clients concerning sales and advertising techniques. Assigns sales territory to sales personnel. Analyzes sales statistics to formulate policy and to assist dealers in promoting sales. Reviews market analyses to determine customer needs, volume potential, price schedules, and discount rates, and develops sales campaigns to accommodate goals of company. Directs product simplification and standardization to eliminate unprofitable items from sales line. Represents company at trade association meetings to promote product. Coordinates liaison between sales department and other sales-related units. Analyzes and controls expenditures of division to conform to budgetary requirements. Assists other departments within establishment to prepare manuals and technical publications. Prepares periodic sales report showing sales volume and potential sales. May direct sales for manufacturer, retail store, wholesale house, jobber, or other establishment. May direct product research and development. May recommend or approve budget, expenditures, and appropriations for research and development work.

GOE: 11.05.04 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 89

163.167-022 MANAGER, UTILITY SALES AND SERVICE (utilities) alternate titles: general superintendent, power sales and service

Directs program to promote sales and provide service to consumers of electric power and gas: Coordinates activities of home-service department in demonstrating use of appliances and home lighting methods with promotional work of sales department. Confers with manufacturers to secure current information on gas and electric appliances and equipment. Estimates area consumer demands for use in planning budget. May be designated according to specialized activity as Manager, Commercial Sales (utilities); Manager, Industrial Sales (utilities); Manager, Residential Sales (utilities).

GOE: 11.05.04 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

163.167-026 PROPERTY-DISPOSAL OFFICER (any industry) alternate titles: redistribution-and-marketing officer; surplus-property disposal agent; surplus sales officer

Disposes of surplus property, other than real property, using knowledge of merchandising practices: Inspects property to ascertain condition and estimate market value. Investigates market conditions and facilities to determine time, place, type of sale, and whether items shall be sold individually or in lots. Prepares advertising material and selects media for its release. Assigns and directs activities of sales personnel. Determines method of property display and sets prices of items to be sold in conformity with value and market. Advises interested parties of salvage possibilities. Recommends destruction or abandonment of property not deemed possible or practical to sell or salvage.

GOE: 11.05.04 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

163.267-010 FIELD REPRESENTATIVE (business ser.; wholesale tr.) alternate titles: distribution manager

Monitors dealers and distributors to ensure efficiency of franchise operation: Surveys proposed locations to determine feasibility of establishing dealerships or distributorships. Advises dealers and distributors of policies and operating procedures to ensure functional effectiveness of business, and also develops information concerning planning and developing of business modifications and expansions. Reviews operations records to evaluate effectiveness.

GOE: 11.05.04 STRENGTH: L GED: R5 M4 L3 SVP: 6 DLU: 77

164 ADVERTISING MANAGEMENT OCCUPATIONS

This group includes occupations concerned with influencing consumer preference for goods and services, either as an employee of the organization served or as a member of an agency under contract; managing advertising programs and campaigns; and, in advertising agencies, managing customers' accounts. Occupations concerned with planning and executing artwork are included in Group 141. Occupations concerned with writing copy are included in Group 131.

164.117-010 MANAGER, ADVERTISING (any industry) alternate titles: director, advertising; sales promotion director

Plans and executes advertising policies of organization: Confers with department heads to discuss possible new accounts and to outline new policies or sales promotion campaigns. Confers with officials of newspapers, radio, and television stations, billboard advertisers, and advertising agencies to negotiate advertising contracts. Allocates advertising space to departments or products of establishment. Reviews and approves television and radio advertisements before release. Reviews rates and classifications applicable to various types of advertising and provides authorization. Directs workers in advertising department engaged in developing and producing advertisements. Directs research activities concerned with gathering information or with compilation of statistics pertinent to planning and execution of advertising sales promotion campaign. May authorize information for publication, such as interviews with reporters or articles describing phases of establishment activity. May serve as establishment representative for geographical district or department. May transact business as agent for advertising accounts. May direct preparation of special promotional features. May monitor and analyze sales promotion results to determine cost effectiveness of promotion campaign.

GOE: 11.09.01 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 89

164.117-014 MANAGER, ADVERTISING AGENCY (business ser.)

Directs activities of advertising agency: Formulates plans to extend business with established accounts, to solicit new accounts, and to establish new advertising policies and procedures. Coordinates activities of departments, such as sales, graphic arts, media, finance, and research. Inspects layouts and advertising copy, and edits radio and television scripts for adherence to specifications. Conducts meetings with agency personnel to outline and initiate new advertising policies or procedures. May confer with clients to provide marketing or technical advice.

GOE: 11.09.01 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 78

164.117-018 MEDIA DIRECTOR (profess. & kin.)

Plans and administers media programs in advertising department: Confers with representatives of advertising agencies, product managers, and corporate advertising staff to establish media goals, objectives, and strategies within corporate advertising budget. Confers with advertising agents or media representatives to select specific programs and negotiate advertising to ensure optimum use of budgeted funds and long-term contracts. Adjusts broadcasting schedules due to program cancellations. Studies demographic data and consumer profiles to identify target audiences of media advertising. Reads trade journals and professional literature to stay informed of trends, innovations, and changes that affect media planning.

GOE: 11.09.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

164.167-010 ACCOUNT EXECUTIVE (business ser.)

Plans, coordinates, and directs advertising campaign for clients of advertising agency: Confers with client to determine advertising requirements and budgetary limitations, utilizing knowledge of product or service to be advertised, media capabilities, and audience characteristics. Confers with agency artists, copywriters, photographers, and other media-production specialists to select media to be used and to estimate costs. Submits proposed program and estimated budget to client for approval. Coordinates activities of workers engaged in marketing research, writing copy, laying out artwork, purchasing media time and space, developing special displays and promotional items, and performing other media-production activities, in order to carry out approved campaign.

GOE: 11.09.01 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

165 PUBLIC RELATIONS MANAGEMENT OCCUPATIONS

This group includes occupations concerned with selection or development of favorable persuasive material and its distribution through personal contact or various communications media, in order to promote goodwill, develop credibility, or create favorable public image for individual, establishment, group, or organization. Includes both generalists and specialists working either as outside consultant or in-house staff member.

165.017-010 LOBBYIST (profess. & kin.) alternate titles: legislative advocate

Contacts and confers with members of legislature and other holders of public office to persuade them to support legislation favorable to client's interest:

Studies proposed legislation to determine possible effect on interest of client, who may be person, specific group, or general public. Confers with legislators and officials to emphasize supposed weaknesses or merits of specific bills to influence passage, defeat, or amendment of measure, or introduction of legislation more favorable to client's interests. Contacts individuals and groups having similar interests in order to encourage them also to contact legislators and present views. Prepares news releases and informational pamphlets and conducts news conferences in order to state client's views and to inform public of features of proposed legislation considered desirable or undesirable. Plans and coordinates meetings between members and elected officials to discuss legislative issues and proposals and allow officials to respond to membership concerns. May contact regulatory agencies and testify at public hearings to enlist support for client's interests. May be legally required to register with governmental authorities as lobbyist and to submit reports of regulated expenditures incurred during lobbying activities. May attend and represent local organization at state and national association meetings. May instruct individuals or organization members in lobbying techniques.
GOE: 11.09.03 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 88

165.117-010 DIRECTOR, FUNDRAISING (nonprofit org.)
Directs and coordinates solicitation and disbursement of funds for community social-welfare organization: Establishes fund-raising goals according to financial need of agency. Formulates policies for collecting and safeguarding contributions. Initiates public relations program to promote community understanding and support for organization's objectives. Develops schedule for disbursing solicited funds. Issues instructions to volunteer and paid workers regarding solicitations, public relations, and clerical duties.
GOE: 11.09.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 80

165.117-014 DIRECTOR, FUNDS DEVELOPMENT (profess. & kin.) alternate titles: director of major or capital gifts
Plans, organizes, directs, and coordinates ongoing and special project funding programs for museum, zoo, public broadcasting station, or similar institution: Prepares statement of planned activities and enlists support from members of institution staff and volunteer organizations. Develops public relations materials to enhance institution image and promote fund raising program. Identifies potential contributors to special project funds and supporters of institution ongoing operations through examination of past records, individual and corporate contracts, and knowledge of community. Plans and coordinates fund drives for special projects. Assigns responsibilities for personal solicitation to members of staff, volunteer organizations, and governing body according to special interests or capabilities. Organizes direct mail campaign to reach other potential contributors. Plans and coordinates benefit events, such as banquets, balls, or auctions. Organizes solicitation drives for pledges of ongoing support from individuals, corporations, and foundations. Informs potential contributors of special needs of institution, and encourages individuals, corporations, and foundations to establish or contribute to special funds through endowments, trusts, donations of gifts-in-kind, or bequests, conferring with attorneys to establish methods of transferring funds to benefit both donors and institution. Researches public and private grant agencies and foundations to identify other sources of funding for research, community service, or other projects. Supervises and coordinates activities of workers engaged in maintaining records of contributors and grants and preparing letters of appreciation to be sent to contributors. May purchase mailing list of potential donors. May negotiate agreements with representatives of other organizations for exchange of mailing lists, information, and cooperative programs.
GOE: 11.09.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 87

165.157-010 SONG PLUGGER (recording)
Persuades producers and announcers of radio and television musical shows to broadcast recordings produced by employer: Contacts broadcasting station officials by telephone, letter, or in person. Represents phonograph recording manufacturer in dealing with broadcasters.
GOE: 08.02.08 STRENGTH: S GED: R4 M2 L4 SVP: 5 DLU: 77

165.167-010 SALES-SERVICE PROMOTER (any industry)
Promotes sales and creates goodwill for firm's products or services by preparing displays, touring country, making speeches at retail dealers conventions, and calling on individual merchants to advise on ways and means for increasing sales. May demonstrate products representing technological advances in industry.
GOE: 11.09.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

165.167-014 PUBLIC-RELATIONS REPRESENTATIVE (profess. & kin.) alternate titles: public-relations practitioner
Plans and conducts public relations program designed to create and maintain favorable public image for employer or client: Plans and directs development and communication of information designed to keep public informed of employer's programs, accomplishments, or point of view. Arranges for public relations efforts in order to meet needs, objectives, and policies of individual, special interest group, business concern, nonprofit organization, or governmental agency, serving as in-house staff member or as outside consultant. Prepares and distributes fact sheets, news releases, photographs, scripts, motion pictures, or tape recordings to media representatives and other persons who may be interested in learning about or publicizing employer's activities or message. Purchases advertising space and time as required. Arranges for and conducts public-contact programs designed to meet employer's objectives, utilizing knowledge of changing attitudes and opinions of consumers, clients, employees, or other interest groups. Promotes goodwill through such publicity efforts as speeches, exhibits, films, tours, and question/answer sessions. Represents employer during community projects and at public, social, and business gatherings. May research data, create ideas, write copy, lay out artwork, contact media representatives, or represent employer directly before general public. May develop special projects such as campaign fund raisers or public awareness about political issues. May direct activities of subordinates. May confer with production and support personnel to coordinate production of television advertisements and on-air promotions. May prepare press releases and fact sheets, and compose letters, using computer. May disseminate facts and information about organization's activities or governmental agency's programs to general public and be known as Public Information Officer (profess. & kin.).
GOE: 11.09.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 89

166 PERSONNEL ADMINISTRATION OCCUPATIONS

This group includes occupations concerned with formulating policies relating to the personnel administration of an organization and conducting programs concerning employee recruitment, selection, training, development, retention, promotion, compensation, benefits, labor relations, and occupational safety. Occupations in personnel research and in administration of testing and counseling programs, for which a background in psychology is required, are included in Group 045.

166.067-010 OCCUPATIONAL ANALYST (profess. & kin.)
Researches occupations and analyzes and integrates data to develop and devise concepts of worker relationships, modify and maintain occupational classification system, and provide business, industry, and government with technical occupational information necessary for utilization of work force: Confers with business, industry, government, and union officials to arrange for and develop plans for studies and surveys. Devises methods and establishes criteria for conducting studies and surveys. Researches jobs, industry and organizational concepts and techniques, and worker characteristics to determine job relationships, job functions and content, worker traits, and occupational trends. Prepares results of research for publication in form of books, brochures, charts, film, and manuals. Identifies need for and develops job analysis tools, such as manuals, reporting forms, training films, and slides. Prepares management tools, such as personnel distribution reports, organization and flow charts, job descriptions, tables of job relationships, and worker trait analysis. Conducts training and provides technical assistance to promote use of job analysis materials, tools, and concepts in areas of curriculum development, career planning, job restructuring, and government and employment training programs. May specialize in providing technical assistance to private, public, or governmental organizations and be designated Industrial Occupational Analyst (profess. & kin.).
GOE: 11.03.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

166.117-010 DIRECTOR, INDUSTRIAL RELATIONS (profess. & kin.) alternate titles: employee relations administrator; vice president, industrial relations
Formulates policy and directs and coordinates industrial relations activities of organization: Formulates policy for subordinate managers of departments, such as employment, compensation, labor relations, and employee services, according to knowledge of company objectives, government regulations, and labor contract terms. Writes directives advising department managers of company policy regarding equal employment opportunities, compensation, and employee benefits. Analyzes wage and salary reports and data to determine competitive compensation plan. Studies legislation, arbitration decisions, and collective bargaining contracts to assess industry trends. Consults legal staff to ensure that policies comply with federal and state law. Prepares personnel forecast to project employment needs. Writes and delivers presentation to corporate officers or government officials regarding industrial relations policies and practices.
GOE: 11.05.02 STRENGTH: L GED: R6 M4 L5 SVP: 8 DLU: 81

166.117-014 MANAGER, EMPLOYEE WELFARE (profess. & kin.) alternate titles: employee-service officer; manager, welfare
Directs welfare activities for employees of stores, factories, and other industrial and commercial establishments: Arranges for physical examinations, first aid, and other medical attention. Arranges for installation and operation of libraries, lunchrooms, recreational facilities, and educational courses. Organizes dances, entertainment, and outings. Ensures that lighting is sufficient, sanitary facilities are adequate and in good order, and machinery safeguarded. May visit workers' homes to observe their housing and general living conditions and recommend improvements if necessary. May assist employees in the solution of personal problems, such as recommending day nurseries for their children and counseling them on personality frictions or emotional maladjustments.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

166.117-018 MANAGER, PERSONNEL (profess. & kin.) alternate titles: manager, human resources
Plans and carries out policies relating to all phases of personnel activity: Recruits, interviews, and selects employees to fill vacant positions. Plans and conducts new employee orientation to foster positive attitude toward company goals. Keeps record of insurance coverage, pension plan, and personnel transactions, such as hires, promotions, transfers, and terminations. Investigates acci-

dents and prepares reports for insurance carrier. Conducts wage survey within labor market to determine competitive wage rate. Prepares budget of personnel operations. Meets with shop stewards and supervisors to resolve grievances. Writes separation notices for employees separating with cause and conducts exit interviews to determine reasons behind separations. Prepares reports and recommends procedures to reduce absenteeism and turnover. Represents company at personnel-related hearings and investigations. Contracts with outside suppliers to provide employee services, such as canteen, transportation, or relocation service. May prepare budget of personnel operations, using computer terminal. May administer manual and dexterity tests to applicants. May supervise clerical workers. May keep records of hired employee characteristics for governmental reporting purposes. May negotiate collective bargaining agreement with BUSINESS REPRESENTATIVE, LABOR UNION (profess. & kin.) 187.167-018.
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 88

166.167-010 CONTESTANT COORDINATOR (radio-tv broad.)
Interviews applicants for television game shows and coordinates studio activities of contestants: Provides information to applicants concerning show objectives, show format, and screens applicants for compliance with needs of show and established rules. Keeps file of applicants and arranges call-back for mock game before PRODUCER (radio-tv broad.). Notifies chosen applicants of selection and provides required information for applicant's participation in show. Performs other personal services, such as attending to needs and comforts of applicants, briefing applicants on studio procedures, and reviewing rules of show. May confer with television game show PRODUCER (radio-tv broad.) to aid in establishing selection standards for contestants. May devise testing procedure and materials used during applicant screening. May operate camera to photograph applicants. May be responsible for final selection of contestants. May interview applicants from studio audience and at such locations as shopping centers, colleges, or theaters to select contestants and be designated Interviewer (radio-tv broad.).
GOE: 07.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

166.167-014 DIRECTOR OF PLACEMENT (education) alternate titles: coordinator of placement; director of career planning and placement; director of career resources; manager of student placement service
Coordinates activities of job placement service for students and graduates: Develops placement office procedures. Establishes work loads, assigns tasks, and reviews results. Conducts in-service training program for placement personnel. Interviews applicants to determine qualifications and eligibility for employment. Assists individuals to develop employment plans based on appraisals of aptitudes, interests, and personality characteristics, and to plan curriculums accordingly. Contacts prospective employers to determine needs and to explain placement service. Arranges on-campus interviews between employers and graduating students to facilitate placement of graduates. Collects, organizes, and analyzes occupational, educational, and economic information for use in job placement activities. Directs maintenance of occupational library. Assists in conducting community surveys to gather labor market information, such as prevailing wages, hours, training, and employment possibilities. Coordinates program for analyzing campus jobs.
GOE: 10.01.02 STRENGTH: S GED: R6 M5 L5 SVP: 8 DLU: 77

166.167-018 MANAGER, BENEFITS (profess. & kin.) alternate titles: manager, employee benefits; manager, employee services; manager, personnel services; personnel administrator
Manages employee benefits program for organization: Plans and directs implementation and administration of benefits programs designed to insure employees against loss of income due to illness, injury, layoff, or retirement. Directs preparation and distribution of written and verbal information to inform employees of benefits programs, such as insurance and pension plans, paid time off, bonus pay, and special employer sponsored activities. Analyzes existing benefits policies of organization, and prevailing practices among similar organizations, to establish competitive benefits programs. Evaluates services, coverage, and options available through insurance and investment companies, to determine programs best meeting needs of organization. Plans modification of existing benefits programs, utilizing knowledge of laws concerning employee insurance coverage, and agreements with labor unions, to ensure compliance with legal requirements. Recommends benefits plan changes to management. Notifies employees and labor union representatives of changes in benefits programs. Directs performance of clerical functions, such as updating records and processing insurance claims. May interview, select, hire, and train employees.
GOE: 11.05.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 87

166.167-022 MANAGER, COMPENSATION (profess. & kin.) alternate titles: wage and salary administrator
Manages compensation program in establishment: Directs development and application of techniques of job analysis, job descriptions, evaluations, grading, and pricing in order to determine and record job factors and to determine and convert relative job worth into monetary values to be administered according to pay-scale guidelines and policy formulated by DIRECTOR, INDUSTRIAL RELATIONS (profess. & kin.). Analyzes company compensation policies, government regulations concerning payment of minimum wages and overtime pay, prevailing rates in similar organizations and industries, and agreements with labor unions, in order to comply with legal requirements and to establish competitive rates designed to attract, retain, and motivate employees. Recommends compensation adjustments according to findings, utilizing knowledge of prevailing rates of straight-time pay, types of wage incentive systems, and special compensation programs for professional, technical, sales, supervisory, managerial, and executive personnel. Approves merit increases permitted within budgetary limits and according to pay policies. Duties may also include administration of employee benefits program [MANAGER, BENEFITS (profess. & kin.)].
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

166.167-026 MANAGER, EDUCATION AND TRAINING (education) alternate titles: training administrator
Plans, coordinates, and directs personnel training and staff development programs for industrial, commercial, service, or governmental establishment: Confers with management and supervisory personnel in order to determine training needs. Compiles data and analyzes past and current year training requirements to prepare budgets and justify funds requested, using calculator or computer. Formulates training policies and schedules, utilizing knowledge of identified training needs, company production processes, business systems, or changes in products, procedures, or services. Designates training procedures, utilizing knowledge of effectiveness of such methods as individual training, group instruction, lectures, on-the-job training, demonstrations, conferences, meetings, and workshops. Organizes and develops training manuals, reference library, testing and evaluation procedures, multimedia visual aids, and other educational materials. Trains assigned instructors and supervisors in effective techniques for training in such areas as those concerned with new employee orientation, specific on-the-job training, apprenticeship programs, sales techniques, health and safety practices, public relations, refresher training, promotional development, upgrading, retraining, and leadership development. Updates records and compiles statistical reports on interviews, transfers, performance rating, and promotions to evaluate performance of instructors and monitor progress of trainees. May coordinate established courses with technical and professional courses offered by community schools. May screen, test, counsel, and recommend employees for educational programs or for promotion or transfer. May write applications and proposals to submit to fund-granting authorities, such as government and foundations.
GOE: 11.07.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 88

166.167-030 MANAGER, EMPLOYMENT (profess. & kin.) alternate titles: employment supervisor
Manages employment activities of establishment: Plans and directs activities of staff workers concerned with such functions as developing sources of qualified applicants, conducting screening interviews, administering tests, checking references and background, evaluating applicants' qualifications, and arranging for preliminary indoctrination and training for newly hired employees according to policy formulated by DIRECTOR, INDUSTRIAL RELATIONS (profess. & kin.) 166.117-010. Keeps records and compiles statistical reports concerning recruitments, interviews, hires, transfers, promotions, terminations, and performance appraisals, utilizing knowledge of job requirements, valid selection processes, and legislation concerning equal employment practices. Coordinates employment activities, such as those concerned with preparing job requisitions; interviewing, selecting, and hiring candidates; on-the-job indoctrination and additional training; supervisory follow-up, development, and rating of employees; and conducting exit interviews. Analyzes statistical data and other reports concerning all aspects of employment function in order to identify and determine causes of personnel problems and to develop and present recommendations for improvement of establishment's employment policies, processes, and practices.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 87

166.167-034 MANAGER, LABOR RELATIONS (profess. & kin.) alternate titles: labor relations representative
Manages labor relations program of organization: Analyzes collective bargaining agreement to develop interpretation of intent, spirit, and terms of contract. Advises management and union officials in development, application, and interpretation of labor relations policies and practices, according to policy formulated by DIRECTOR, INDUSTRIAL RELATIONS (profess. & kin.) 166.117-010. Arranges and schedules meetings between grieving workers, supervisory and managerial personnel, and BUSINESS REPRESENTATIVE, LABOR UNION (profess. & kin.) 187.167-018, to investigate and resolve grievances. Prepares statistical reports, using records of actions taken concerning grievances, arbitration and mediation cases, and related labor relations activities, to identify problem areas. Monitors implementation of policies concerning wages, hours, and working conditions, to ensure compliance with terms of labor contract. Furnishes information, such as reference documents and statistical data concerning labor legislation, labor market conditions, prevailing union and management practices, wage and salary surveys, and employee benefits programs, for use in review of current contract provisions and proposed changes. May represent management in labor contract negotiations. May supervise employees and be known as Labor Relations Supervisor (profess. & kin.). May be employed by firm offering labor relations advisory services to either management or labor and be known as Labor Relation Consultant (profess. & kin.). May be employed by governmental agency to study, interpret, and report on relations between management and labor and be known as Industrial Relations Representative (government ser.).
GOE: 11.05.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 81

166.167-038 PORT PURSER (water trans.)
Coordinates activities and trains workers concerned with shipboard business functions and social activities for passengers: Screens applicants applying for positions. Assigns trainees to vessels, considering their duties and responsibil-

ities. Plans training and rotation of trainees between ship and shore positions. Hires entertainment and medical staff and plans replacement programs to ensure that qualified personnel are available in case of sickness or resignation. Adjusts complaints of passengers which cannot be resolved during voyage.
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

166.167-042 SENIOR ENLISTED ADVISOR (military ser.)
Advises commander on such matters as troop welfare, health, and morale: Assists commander on official visits and at military ceremonies. Assists in inspection of facilities and personnel to determine if established standards are met. Counsels enlisted personnel concerning attitude, personal problems, and similar matters, and to elicit their cooperation and self improvement. Reviews activities of subordinate noncommissioned officers, and initiates appropriate corrective action for discrepancies noted. May assists commander in reception of visitors. May supervise clerical or administrative personnel.
GOE: 11.10.03 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

166.167-046 SPECIAL AGENT (insurance) alternate titles: sales representative
Recruits independent SALES AGENTS, INSURANCE (insurance) in field and maintains contact between agent and home office: Selects SALES AGENT, INSURANCE (insurance), based on experience with other insurance companies. Drafts contract between agent and company. Advises agent on matters pertaining to conduct of business, such as cancellations, overdue accounts, and new business prospects. May gather information for UNDERWRITER (insurance). When working in life insurance, is designated Brokerage Manager (insurance).
GOE: 11.05.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

166.167-050 PROGRAM SPECIALIST, EMPLOYEE-HEALTH MAINTENANCE (profess. & kin.)
Coordinates activities of area employers in setting up local government funded program within establishments to help employees who are not functioning at satisfactory levels of job performance due to alcoholism or other behavioral medical problems: Writes and prepares newspaper advertisements, newsletters, and questionnaires and speaks before community groups to promote employee assistance program within business community. Analyzes character and type of business establishments in area, and compiles list of prospective employers appropriate for implementing assistance program. Contacts prospective employers, explains program and fees, points out advantages of program, and reaches agreement with interested employers on extent of proposed program. Develops program within establishment. Establishes committee composed of company officials and workers to develop statement of employee assistance program and policy and procedures. Plans and conducts training sessions for company officials to develop skills in identifying and handling employees troubled by alcoholism or other personal problems. Assists employer in setting up in-plant educational program to prevent alcoholism, using posters, pamphlets, and films, and establishes referral network providing for in-plant and out-of-plant group or individual counseling for troubled employees. Confers with team member of assistance program who provides counseling regarding planning and progress of counseling components. Confers with staff of employee assistance program regarding progress and evaluation of current programs and proposals for developing new programs.
GOE: 11.05.02 STRENGTH: S GED: R5 M3 L5 SVP: 6 DLU: 86

166.167-054 TECHNICAL TRAINING COORDINATOR (education)
Coordinates activities of instructors engaged in training employees or customers of industrial or commercial establishment: Confers with managers, instructors, or customer's representative to determine training needs. Assigns instructors to conduct training. Schedules classes, based on availability of classrooms, equipment, and instructors. Evaluates training packages, including outline, text, and handouts written by instructors. Assigns instructors to in-service or out-service training classes to learn new skills as needed. Monitors budget to ensure that training costs do not exceed allocated funds. Writes budget report listing training costs, such as instructors' wages and equipment costs, to justify expenditures. Attends meetings and seminars to obtain information useful to training staff and to inform management of training programs and goals. Monitors instructors during lectures and laboratory demonstrations to evaluate performance. May perform other duties as described under SUPERVISOR (any industry) Master Title. May develop and conduct training programs for employees or customers of industrial or commercial establishment [INSTRUCTOR, TECHNICAL TRAINING (education) 166.221-010].
GOE: 11.07.03 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 87

166.221-010 INSTRUCTOR, TECHNICAL TRAINING (education) alternate titles: training specialist
Develops and conducts programs to train employees or customers of industrial or commercial establishment in installation, programming, safety, maintenance, and repair of machinery and equipment, such as robots, *programmable controllers*, and *robot controllers*, following manuals, specifications, blueprints, and schematics, and using handtools, measuring instruments, and testing equipment: Confers with management and staff or TECHNICAL TRAINING COORDINATOR (education) 166.167-054 to determine training objectives. Writes training program, including outline, text, handouts, and tests, and designs laboratory exercises, applying knowledge of electronics, mechanics, hydraulics, pneumatics, and programming, and following machine, equipment, and tooling manuals. Schedules classes based on classroom and equipment availability. Lectures class on safety, installation, programming, maintenance, and repair of machinery and equipment, following outline, handouts, and texts, and using visual aids, such as graphs, charts, videotape, and slides. Demonstrates procedures being taught, such as programming and repair, applying knowledge of electrical wire color coding, programming, electronics, mechanics, hydraulics, and pneumatics, using handtools, measuring instruments, and testing equipment, and following course outline. Observes trainees in laboratory and answers trainees' questions. Administers written and practical exams and writes performance reports to evaluate trainees' performance. Participates in meetings, seminars, and training sessions to obtain information useful to training facility and integrates information into training program. May repair electrical and electronic components of robots in industrial establishments. May install, program, maintain, and repair robots in customer's establishment [FIELD SERVICE TECHNICIAN (machinery mfg.) 638.261-026]. May be designated according to subject taught as Instructor, Programmable Controllers (education); Instructor, Robotics (education).
GOE: 11.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

166.227-010 TRAINING REPRESENTATIVE (education) alternate titles: training instructor
Develops and conducts training programs for employees of industrial, commercial, service, or government establishment: Confers with management to gain knowledge of work situation requiring training for employees to better understand changes in policies, procedures, regulations, and technologies. Formulates teaching outline and determines instructional methods, utilizing knowledge of specified training needs and effectiveness of such methods as individual training, group instruction, lectures, demonstrations, conferences, meetings, and workshops. Selects or develops teaching aids, such as training handbooks, demonstration models, multimedia visual aids, computer tutorials, and reference works. Conducts training sessions covering specified areas such as those concerned with new employee orientation, on-the-job training, use of computers and software, apprenticeship programs, sales techniques, health and safety practices, public relations, refresher training, promotional development, upgrading, retraining displaced workers, and leadership development. Tests trainees to measure progress and to evaluate effectiveness of training. May specialize in developing instructional software.
GOE: 11.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 88

166.257-010 EMPLOYER RELATIONS REPRESENTATIVE (profess. & kin.)
Establishes and maintains working relationships with local employers to promote use of public employment programs and services: Contacts employers new to area or company requiring revisit and arranges appointment to visit company representative or employer responsible for hiring workers. Establishes rapport between Employment Service and company to promote use of agency programs and services. Confers with employer to resolve problems, such as local employment office effectiveness, employer complaints, and alternative employer actions for recruiting qualified applicants. Answers employer questions concerning Employment Service programs or services available. Solicits employers to list job openings with Employment Service. Receives job orders from employers by phone or in person and records information to facilitate selection and referral process.
GOE: 11.09.03 STRENGTH: L GED: R5 M2 L4 SVP: 6 DLU: 86

166.267-010 EMPLOYMENT INTERVIEWER (profess. & kin.) alternate titles: personnel interviewer; placement interviewer
Interviews job applicants to select people meeting employer qualifications. Reviews employment applications and evaluates work history, education and training, job skills, compensation needs, and other qualifications of applicants. Records additional knowledge, skills, abilities, interests, test results, and other data pertinent to selection and referral of applicants. Reviews job orders and matches applicants with job requirements, utilizing manual or computerized file search. Informs applicants of job duties and responsibilities, compensation and benefits, work schedules and working conditions, company and union policies, promotional opportunities, and other related information. Refers selected applicants to person placing job order, according to policy of organization. Keeps records of applicants not selected for employment. May perform reference and background checks on applicants. May refer applicants to vocational counseling services. May conduct or arrange for skills, intelligence, or psychological testing of applicants. May evaluate selection and placement techniques by conducting research or follow-up activities and conferring with management and supervisory personnel. May specialize in interviewing and referring certain types of personnel, such as professional, technical, managerial, clerical, and other types of skilled or unskilled workers. May search for and recruit applicants for open positions [PERSONNEL RECRUITER (profess. & kin.) 166.267-038]. May contact employers in writing, in person, or by telephone to solicit orders for job vacancies for clientele or for specified applicants and record information about job openings on job order forms to describe duties, hiring requirements, and related data.
GOE: 11.03.04 STRENGTH: S GED: R5 M3 L5 SVP: 6 DLU: 87

166.267-014 HOSPITAL-INSURANCE REPRESENTATIVE (insurance)
Interprets hospital and medical insurance services and benefits to contracting hospital personnel: Discusses contract provisions and hospital claims forms with medical and hospital personnel. Instructs hospital clerical staff in resolving problems concerning billing and admitting procedures. Writes reports outlining hospital and contract benefits for incorporation into brochures and pamphlets. May travel from city to city.

GOE: 07.01.05 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

166.267-018 JOB ANALYST (profess. & kin.) alternate titles: personnel analyst

Collects, analyzes, and prepares occupational information to facilitate personnel, administration, and management functions of organization: Consults with management to determine type, scope, and purpose of study. Studies current organizational occupational data and compiles distribution reports, organization and flow charts, and other background information required for study. Observes jobs and interviews workers and supervisory personnel to determine job and worker requirements. Analyzes occupational data, such as physical, mental, and training requirements of jobs and workers and develops written summaries, such as job descriptions, job specifications, and lines of career movement. Utilizes developed occupational data to evaluate or improve methods and techniques for recruiting, selecting, promoting, evaluating, and training workers, and administration of related personnel programs. May specialize in classifying positions according to regulated guidelines to meet job classification requirements of civil service system and be known as Position Classifier (government ser.)
GOE: 11.03.04 STRENGTH: L GED: R5 M4 L5 SVP: 6 DLU: 77

166.267-022 PRISONER-CLASSIFICATION INTERVIEWER (profess. & kin.)

Interviews new prison inmates to obtain social and criminal histories to aid in classification and assignment of prisoners to appropriate work and other activities: Gathers data, such as work history, school, criminal, and military records, family background, habits, religious beliefs, and prisoner's version of crime committed. Analyzes prisoner's social attitudes, mental capacity, character, and physical capabilities and prepares admission summary based on data obtained. Explains prison rules and regulations.
GOE: 11.03.04 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 77

166.267-026 RECRUITER (military ser.) alternate titles: career counselor

Interviews military and civilian personnel to recruit and inform individuals on matters concerning career opportunities, incentives, military rights and benefits, and advantages of military career: Assists and advises military commands in organizing, preparing, and implementing enlisted recruiting and retention program. Interviews individuals to determine their suitability for placement into specific military occupation. Occasionally lectures to civic and social groups, military dependents, school officials, and religious leaders concerning military career opportunities.
GOE: 11.03.04 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 86

166.267-030 RETIREMENT OFFICER (government ser.)

Provides information and advice concerning provisions and regulations of state-administered retirement program for public employees: Explains retirement annuity system to personnel officers of local or state governmental entities covered by system, utilizing knowledge of rules and policies of retirement plan. Explains retirement policies and regulations of retirement board to covered employee groups, utilizing knowledge of annuity payments, procedure manuals, and official interpretations. Audits retirement accounts and examines records of employing entities to ensure compliance with prescribed standards and regulations. Attends and addresses conferences and other meetings of employees concerned, as representative of retirement board.
GOE: 07.01.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

166.267-034 JOB DEVELOPMENT SPECIALIST (profess. & kin.)

Promotes and develops employment and on-the-job training opportunities for disadvantaged applicants: Assists employers in revising standards which exclude applicants from jobs. Demonstrates to employers effectiveness and profitability of employing chronically unemployed by identifying jobs that workers could perform. Establishes relationships with employers regarding problems, complaints, and progress of recently placed disadvantaged applicants and recommends corrective action. Assists employers in establishing wage scales commensurate with prevailing rates. Promotes, develops, and terminates on-the-job training program opportunities with employers and assists in writing contracts. Identifies need for and assists in development of auxiliary services to facilitate bringing disadvantaged applicants into job-ready status. Informs business, labor, and public about training programs through various media. May instruct applicants in resume writing, job search, and interviewing techniques.
GOE: 11.03.04 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 86

166.267-038 PERSONNEL RECRUITER (profess. & kin.)

Seeks out, interviews, screens, and recruits job applicants to fill existing company job openings: Discusses personnel needs with department supervisors to prepare and implement recruitment program. Contacts colleges to arrange on-campus interviews. Provides information on company facilities and job opportunities to potential applicants. Interviews college applicants to obtain work history, education, training, job skills, and salary requirements. Screens and refers qualified applicants to company hiring personnel for follow-up interview. Arranges travel and lodging for selected applicants at company expense. Performs reference and background checks on applicants. Corresponds with job applicants to notify them of employment consideration. Files and maintains employment records for future references. Projects yearly recruitment expenditures for budgetary control.
GOE: 11.03.04 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 86

166.267-042 EMPLOYEE RELATIONS SPECIALIST (profess. & kin.)

Interviews workers to gather information on worker attitudes toward work environment and supervision received to facilitate resolution of employee relations problems: Explains to workers company and governmental rules, regulations, and procedures, and need for compliance. Gathers information on workers' feelings about factors that affect worker morale, motivation, and efficiency. Meets with management to discuss possible actions to be taken. Inspects work stations to ensure required changes or actions are implemented. Interviews workers to determine reactions to specific actions taken. Prepares reports on workers' comments and actions taken. Enrolls eligible workers in company programs, such as pension and savings plans. Maintains medical, insurance, and other personnel records and forms. May operate computer to compile, store, or retrieve worker related information, such as medical, insurance, pension, and savings plans.
GOE: 11.03.04 STRENGTH: S GED: R4 M2 L2 SVP: 7 DLU: 87

166.267-046 HUMAN RESOURCE ADVISOR (profess. & kin.)

Provides establishment personnel assistance in identifying, evaluating, and resolving human relations and work performance problems within establishment to facilitate communication and improve employee human relations skills and work performance: Talks informally with establishment personnel and attends meetings of managers, supervisors, and work units to facilitate effective interpersonal communication among participants and to ascertain human relations and work related problems that adversely affect employee morale and establishment productivity. Evaluates human relations and work related problems and meets with supervisors and managers to determine effective remediation techniques, such as job skill training or personal intervention, to resolve human relations issues among personnel. Develops and conducts training to instruct establishment managers, supervisors, and workers in human relation skills, such as supervisory skills, conflict resolution skills, interpersonal communication skills, and effective group interaction skills. Schedules individuals for technical job-related skills training to improve individual work performance. May participate in resolving labor relations issues. May assist in screening applicants for establishment training programs. May write employee newsletter. May operate audio-visual equipment to review or to present audio-visual tapes for training program.
GOE: 11.02.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 87

168 INSPECTORS AND INVESTIGATORS, MANAGERIAL AND PUBLIC SERVICE

This group includes occupations concerned with examining the condition of persons, plants, and animals; the quality of consumer products and services; and the operations of establishments, serving in the capacity of a governmental or private inspector or investigator in order to verify compliance with and enforcement of regulatory laws, health, and safety laws, or the establishment's quality standards. Occupations for public service and private detectives concerned with enforcement of criminal laws are found in Groups 375 and 376. Occupations concerned with performing laboratory or other scientific tests in order to ascertain the nature or quality of items are generally to be found in the group of the basic physical or life science with which they are concerned. Occupations which involve working in a specific professional discipline, such as engineering, medicine, or the physical and life sciences and which involve working for a governmental agency in the capacity of an inspector or investigator still belong to the basic group of their specific discipline.

168.161-010 CORONER (government ser.) alternate titles: medical examiner

Directs investigation of deaths occurring within jurisdiction as required by law: Directs activities of staff physicians, technicians, and investigators involved with conducting inquests, performing autopsies, conducting pathological and toxicological analyses, and investigating circumstances of deaths in order to determine cause and fix responsibility for accidental, violent, or unexplained deaths, or contracts for such services with outside physicians, medical laboratories, and law enforcement agencies. Testifies at inquests, hearings, and court trials. Confers with officials of public health and law enforcement agencies to coordinate interdepartmental activities. Coordinates activities for disposition of unclaimed corpse and personal effects of deceased. Directs activities of workers involved in preparing documents for permanent records. May assist relatives of deceased in negotiations concerning payment of insurance policies or burial benefits by providing information concerning circumstances of death. May be required by law or ordinance to have specified medical or legal training.
GOE: 02.02.01 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

168.161-014 INDUSTRIAL-SAFETY-AND-HEALTH TECHNICIAN (any industry)

Plans and directs safety and health activities in industrial plant to evaluate and control environmental hazards: Tests noise levels and measures air quality, using precision instruments. Maintains and calibrates instruments. Administers hearing tests to employees. Trains forklift operators to qualify for licensing. Enforces use of safety equipment. Lectures employees to obtain compliance with regulations. Develops and monitors emergency action plans. Investigates accidents and prepares accident reports. Assists management to prepare safety and health budget. Recommends changes in policies and procedures to prevent accidents and illness.
GOE: 11.10.03 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 86

168.167-010 CUSTOMS PATROL OFFICER (government ser.)

Conducts surveillance, inspection, and patrol by foot, vehicle, boat, or aircraft at assigned points of entry into the United States to prohibit smuggled mer-

chandise and contraband and to detect violations of Customs and related laws: Inspects vessels, aircraft, and vehicles at docking, landing, crossing, and entry points. Establishes working rapport with local residents, law enforcement agencies, and businesses. Observes activity and regularity of vessels, planes, cargo, and storage arrangements in assigned area. Gathers and evaluates information from informers and other sources. Locates and apprehends customs violators. Assists in developing and testing new enforcement techniques and equipment. Develops intelligence information and forwards data for use by U.S. Customs Service. Testifies in courts of law against customs violators.
GOE: 04.01.02 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 77

168.167-014 EQUAL-OPPORTUNITY REPRESENTATIVE (government ser.)

Organizes and implements federally funded programs related to equal employment opportunity by providing consultation, encouraging good will between employers and minority communities, and evaluating employment practices: Consults with community representatives to develop technical assistance agreements in accordance with statutory regulations. Informs minority community on civil rights laws. Assists employers to interpret state and federal laws. Develops guidelines for nondiscriminatory employment practices for use by employers. Acts as liaison representative between minority placement agencies and large employers. Investigates existing employment practices to detect and correct discriminatory factors. Conducts surveys and evaluates findings to determine existence of systematic discrimination.
GOE: 11.10.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

168.167-018 HEALTH OFFICER, FIELD (government ser.) alternate titles: investigator, communicable disease

Investigates reported cases of communicable diseases and advises exposed persons to obtain medical treatment and to prevent further spread of disease: Locates and interviews exposed person, using information obtained from records of state or local public health departments and from individual already under treatment for communicable disease. Advises person to obtain treatment from private physician or public health clinic. May take blood sample to assist in identifying presence of disease in suspected victim. Questions exposed person to obtain information concerning other persons who may have received exposure. Conducts follow-up interviews with patients and suspected carriers. Writes report of activities and findings. Visits physicians, laboratories, and community health facilities to stimulate reporting of cases and to provide information about government-sponsored health programs concerning immunization efforts, VD control, mosquito abatement, and rodent control.
GOE: 11.10.03 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 77

168.167-022 IMMIGRATION INSPECTOR (government ser.)

Regulates entry of persons into United States at designated port of entry in accordance with immigration laws: Examines applications, visas, and passports and interviews persons to determine eligibility for admission, residence, and travel privileges in United States. Interprets laws and explains decisions to persons seeking entry. Arrests, detains, paroles, or arranges for deportation of persons according to laws, regulations, and departmental orders. Writes reports of activities and decisions. May patrol border on foot or horseback, or by airplane, automobile, or boat to detect and apprehend persons entering United States illegally and be designated Immigration Patrol Inspector (government ser.).
GOE: 11.10.04 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

168.167-026 INSPECTOR, BOILER (profess. & kin.) alternate titles: safety-engineer, pressure vessels

Inspects boilers, pressure vessels, and accessories for conformance to safety laws and standards regulating their design, fabrication, installation, repair, and operation: Inspects steam boilers, air tanks, liquefied gas tanks, and other pressure vessels under construction or already installed in ships or in residential, commercial, or industrial buildings to verify conformance to safety codes and standards issued by governmental agency, recognized professional technical organization, or insurance underwriting company. Inspects drawings, designs, and specifications for boilers and other vessels. Inspects materials used, safety devices, regulators, construction quality, brace and rivet tension, riveting, welding, pitting, corrosion, cracking, safety valve operation, and other factors affecting condition and operation of equipment. Performs standard tests such as hammer, accumulation, and hydrostatic tests to verify condition of boilers and other vessels. Calculates allowable limits of pressure, strength, and stresses. Witnesses acceptance and installation tests. Recommends changes to correct unsafe conditions. Orders correction of faulty work or materials or other conditions which violate legal requirements. Checks permits and methods of operation for boiler and other pressure vessel installations. Confers with engineers, manufacturers, contractors, owners, and operators concerning problems in construction, operation, and repair of pressure vessels and accessories. Investigates accidents involving pressure vessels to determine causes and to develop methods of preventing recurrences. Keeps records and prepares reports of inspections and investigations for administrative or legal authorities. May be required to possess Federal, State, or local license.
GOE: 05.03.06 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

168.167-030 INSPECTOR, BUILDING (government ser.)

Inspects new and existing buildings and structures to enforce conformance to building, grading, and zoning laws and approved plans, specifications, and standards: Inspects residential, commercial, industrial, and other buildings during and after construction to ensure that components, such as footings, floor framing, completed framing, chimneys, and stairways meet provisions of building, grading, zoning, and safety laws and approved plans, specifications, and standards. Observes conditions and issues notices for corrections to persons responsible for conformance. Obtains evidence and prepares report concerning violations which have not been corrected. Interprets legal requirements and recommends compliance procedures to contractors, craftworkers, and owners. Keeps inspection records and prepares reports for use by administrative or judicial authorities. May conduct surveys of existing buildings to determine lack of prescribed maintenance, housing violations, or hazardous conditions. May review request for and issue building permits. May specialize in inspecting multifamily residences, temporary structures, buildings to be moved, or building appendages, such as chimneys, signs, swimming pools, retaining walls, and excavations and fills. May specialize in inspecting single-family residences for enforcement of full range of building, zoning, grading, and mechanical codes, including electrical, plumbing, heating and refrigeration, ventilating, and air-conditioning regulations and be designated Residential Building Inspector (government ser.).
GOE: 05.03.06 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 81

168.167-034 INSPECTOR, ELECTRICAL (government ser.)

Inspects electrical installations to verify conformance with safety laws and ordinances: Inspects electrical installations during construction or remodeling to enforce laws and ordinances establishing and maintaining minimum standards for residential, commercial, and industrial electrical installation and appliances. Reviews electrical plans and materials list to interpret specifications and methods of installation. Verifies loads, demand factors, and number of circuits to ensure that circuits are capable of operating without overloads. Inspects electric wiring, fixtures, and equipment, and issues notices to repair, remove, or refrain from using items found to be unsafe. Interprets legal requirements and recommends compliance procedures to contractors, craftworkers, and owners. Keeps records of inspections and prepares reports for use by administrative or judicial authorities.
GOE: 05.03.06 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

168.167-038 INSPECTOR, ELEVATORS (government ser.) alternate titles: safety engineer, elevators

Inspects lifting and conveying devices, such as elevators, escalators, moving sidewalks, and other similar mechanisms to verify conformance to laws and ordinances regulating design, installation, and safe operation: Inspects mechanical and electrical features of elevator installations, including elevator cars, beams, safety devices, control circuits, cables, guide rails, governors, switch boxes, counterweights, and buffers for conformance to governmental safety orders and regulations concerning standards of design, installation, maintenance, and operation. Conducts time tests of elevator's speed. Computes allowable loads for elevators and other devices. Observes running and drop test of elevators to determine if brakes and safety devices work properly. Inspects escalators, dumbwaiters, personnel lifts and hoists, platform hoists, inclined railways, aerial tramways, ski lifts, and various amusement rides to determine if safety precautions are observed. Recommends corrections for unsafe conditions. Seals operating device of unsafe elevators and other equipment. Investigates accidents involving elevators and similar lifting devices to determine causes and to develop means of preventing recurrence. Inspects equipment damaged by fire and recommends repair. Consults with engineers, installers, and owners regarding solution to problems connected with installation, maintenance, and repair of elevating equipment. Keeps records and prepares reports of inspections and investigations for use by administrative and legal authorities.
GOE: 05.03.06 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

168.167-042 INSPECTOR, HEALTH CARE FACILITIES (government ser.)

Inspects health care facilities, such as hospitals, nursing homes, sheltered care homes, maternity homes, and day care centers, to enforce public health laws and to investigate complaints: Inspects physical facilities, equipment, accommodations, and operating procedures to ensure compliance with laws governing standards of sanitation, acceptability of facilities, record keeping, staff competence qualifications, and ethical practices. Reviews reports concerning staffing, personal references, floor plans, fire inspections, and sanitation. Recommends changes in facilities, standards, and administrative methods in order to improve services and efficiency, utilizing knowledge of good practices and legal requirements. Advises applicants for approval of health care facilities on license application and rules governing operation of such facilities. May testify at hearings or in court. May compile data on conditions of health care facilities, for use in determining construction needs in community or region.
GOE: 11.10.03 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

168.167-046 INSPECTOR, HEATING AND REFRIGERATION (government ser.)

Inspects heating, ventilating, air-conditioning, and refrigeration installations for conformance to safety laws and regulations and approved plans and specifications: Inspects heating, ventilating, air-conditioning, and refrigeration equipment and installations in residential, commercial, and industrial buildings and facilities for conformance to safety laws and ordinances designed to prevent use of faulty equipment. Issues notices for correction of defective installations and issues citations to violators of safety code. Inspects gas heating appliances in retail stores and notifies dealers to remove unapproved appliances. Confers with property owners or agents to discuss and approve alteration plans to heating, ventilating, air-conditioning, and refrigeration equipment that comply with safe-

ty regulations. Investigates complaints regarding installation of heating and refrigeration equipment by unlicensed contractors. Keeps records and prepares reports of inspections and investigations for use by administrative or judicial authorities. May investigate installations where fire or death has occurred. May determine percentage and acceptability of contract work completed for purposes of progress payments.
GOE: 05.07.02 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

168.167-050 INSPECTOR, PLUMBING (government ser.)
Inspects plumbing installations for conformance to governmental codes, sanitation standards, and construction specifications: Inspects commercial and industrial plumbing systems for conformance to plumbing laws and codes and approved plans and specifications. Inspects water-supply systems, drainage and sewer systems, water heater installations, fire sprinkler systems, and air and gas piping systems for approved materials, specified pipe sizes and connections, required grade and fitting, approved back-flow prevention devices, required bracing, ventilation, and air- and- water-tightness. Inspects building sites for soil type to determine fill conditions, water table level, site layout, seepage rate, and other conditions. Advises owners and contractors on acceptable locations for septic tanks, cesspools, and seepage pits. Interviews PLUMBER (construction) working in jurisdiction to determine possession of valid occupational licenses. Reviews plumbing permit applications and verifies payment of fees. Reviews complaints concerning alleged violations of plumbing code, gathers evidence, and appears in court as witness. Keeps records of inspections performed, actions taken, and corrections recommended and secured.
GOE: 05.03.06 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

168.167-058 MANAGER, CUSTOMER SERVICE (tel. & tel.)
Plans, directs, and coordinates activities of workers engaged in receiving, investigating, evaluating, and settling complaints and claims of telegraph customers: Directs workers to investigate complaints, such as those concerning rates or service in connection with domestic, international, or special-gift telegrams. Analyzes reports of findings and recommends response to complaint, considering nature and complexity of complaint, requirements of governmental utility-regulation agencies, and policies of company. Reviews actions of subordinates to ensure settlements are made correctly. Authorizes retention of data and preparation of documents for use during governmental or customer inquiries.
GOE: 11.12.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

168.167-062 OCCUPATIONAL-SAFETY-AND-HEALTH INSPECTOR (government ser.) alternate titles: occupational-safety-and-health-compliance officer
Inspects places of employment to detect unsafe or unhealthy working conditions: Inspects work environment, machinery, and equipment in establishments and other work sites for conformance with governmental standards according to procedure or in response to complaint or accident. Interviews supervisors and employees to obtain facts about work practice or accident. Rates unsafe condition according to factors, such as severity of potential injury, likelihood of recurrence, employers' accident record, and evidence of voluntary compliance. Observes employees at work to determine compliance with safety precautions and safety equipment used. Orders suspension of activity posing threat to workers. Writes new safety order proposal designed to protect workers from work methods, processes, or other hazard not previously covered, using knowledge of safety-engineering practices, available protective devices, safety testing, and occupational safety and health standards. Discusses reason for inspection and penalty rating system with employer. Reviews log of reportable accidents and preventive actions taken to determine employers' attitude toward compliance with regulations. Documents findings and code sections violated. Interprets applicable laws and regulations to advise employer on legal requirements. May specialize in inspection of specific machine, apparatus, or device. May specialize in inspection of specific industry, such as construction, manufacturing, mining, petroleum, or transportation. May testify in legal proceedings. May photograph work environment suspected of endangering workers to provide evidence in legal proceedings.
GOE: 11.10.03 STRENGTH: L GED: R5 M5 L5 SVP: 6 DLU: 77

168.167-066 QUALITY-CONTROL COORDINATOR (pharmaceut.)
Coordinates activities of workers engaged in testing and evaluating ethical and proprietary pharmaceuticals in order to control quality of manufacture and to ensure compliance with legal standards: Participates with management personnel in establishing procedures for testing drugs and related products, applying knowledge of controlled production, sampling techniques, testing procedures, and statistical analysis. Assigns subordinates to specific testing functions. Reviews laboratory reports of test batches. Recommends full-scale production of batches meeting company or consumer specifications and complying with federal purity standards. Orders destruction of substandard batches, as authorized by supervisor. Directs and coordinates investigation of complaints concerning defective products. Recommends response to complaints, considering test reports, production records, legal standards, and complaint validity. Reviews legislative developments to determine changes in legal requirements and probable effects on company's manufacturing activities. Directs retention of data and preparation of documents for use by self or other company personnel during inquiries concerning suspect products.
GOE: 05.02.03 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

168.167-070 REGULATORY ADMINISTRATOR (tel. & tel.)
Directs and coordinates activities of workers engaged in investigating and responding to complaints from telephone subscribers or regulatory agencies concerning rates and services: Directs investigations of telephone company rates and services to ensure that subscribers' complaints are answered and requirements of governmental utility-regulation agencies are met. Analyzes reports of resulting data and recommends response to complaint, considering nature of complaint and company interests and policies. Directs preparation of documents for use by company witnesses summoned to testify at governmental hearings. Reviews governmental rulings to determine changes in legal stipulations and probable effects on company activities. May provide advice and source data to management personnel concerned with preparing applications to regulatory bodies for changes in rates or service.
GOE: 11.10.05 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

168.167-074 REVIEWING OFFICER, DRIVER'S LICENSE (government ser.)
Evaluates traffic record and other aspects of driver's attitude and behavior to recommend suspension, revocation, or reinstatement of state operator's license: Reviews written record of driver, considering applicable laws and factors, such as number and nature of accidents, interval between accidents or convictions, driver's occupation, and number and gravity of traffic convictions, to evaluate driver's attitude and determine probability of repeated offenses. Recommends probation, suspension, or revocation of license, following rules, regulations, and policies of agency. Conducts hearings at request of persons whose licenses have been suspended or revoked to receive testimony and facts bearing on action. Receives petitions for reinstatement of licenses and approves or disapproves petitions according to evaluation of all pertinent facts. Confers with police and court officials to compile information, facilitate location or punishment of violators, and promote traffic safety. May allocate points for accidents or convictions and mail warnings to violators facing automatic penalties.
GOE: 11.10.03 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

168.167-078 SAFETY INSPECTOR (insurance) alternate titles: loss-control technician; safety engineer
Inspects insured properties to evaluate physical conditions and promote safety programs: Inspects properties such as buildings, industrial operations, vehicles, and recreational facilities to evaluate physical conditions, safety practices, and hazardous situations according to knowledge of safety and casualty underwriting standards and governmental regulations. Measures insured area, calculates frontage, and records description and amount of stock, and photographs or drafts scale drawings of properties, to identify factors affecting insurance premiums. Analyzes history of accidents and claims against insured and inspects scenes of accidents to determine causes and to develop accident-prevention programs. Prepares written report of findings and recommendations for correction of unsafe or unsanitary conditions. Confers with employees of insured to induce compliance with safety standards, codes, and regulations. Conducts informational meetings among various educational, civic, and industrial groups to promote general safety concepts, utilizing audiovisual aids and insurance statistics. May specialize in specific type of accident-prevention or safety program, such as fire safety or traffic safety.
GOE: 11.10.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

168.167-082 TRANSPORTATION INSPECTOR (motor trans.; r.r. trans.) alternate titles: service inspector; undercover agent
Compiles information concerning activities and conduct of employees on railroads, streetcars, and buses and submits written reports of findings: Observes employees performing assigned duties, assuming role of passenger to note their deportment, treatment of passengers, and adherence to company regulations and schedules. Observes and records time required to load and unload passengers or freight, volume of traffic at different stops or stations, and on streetcars and buses, at different times of day. Inspects company vehicles and other property for damage and evidence of abuse. Submits written reports to management with recommendations for improving service.
GOE: 11.10.05 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

168.167-086 SAFETY MANAGER (medical ser.)
Plans, implements, coordinates, and assesses hospital accident, fire prevention, and occupational safety and health programs under general direction of hospital officials, utilizing knowledge of industrial safety-related engineering discipline and operating regulations: Develops and recommends new procedures and approaches to safety and loss prevention based on reports of incidents, accidents, and other data gathered from hospital personnel. Disseminates information to department heads and others regarding toxic substances, hazards, carcinogens, and other safety information. Assists department heads and administrators in enforcing safety regulations and codes. Measures and evaluates effectiveness of safety program, using established goals. Conducts building and grounds surveys on periodic and regular basis to detect code violations, hazards, and incorrect work practices and procedures. Develops and reviews safety training for hospital staff. Maintains administrative control of records related to safety and health programs. Prepares and disseminates memos and reports. Maintains required records. Assists personnel department in administering worker compensation program.
GOE: 11.10.03 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 86

168.167-090 MANAGER, REGULATED PROGRAM (government ser.)
Directs and coordinates activities of departmental personnel engaged in investigating regulated activities to ensure compliance with federal, state, or municipal laws, utilizing knowledge of agency's purposes, rules, regulations, procedures, and practices: Reviews agency's current work load status, schedules

and individual personnel assignments and expertise to establish priorities and to determine ability to accept and complete future commitments. Assigns specific duties to inspectors or INVESTIGATOR (government ser.) 168.267-062 either directly or through subordinate supervisors. Reviews work reports, papers, rulings, and other records prepared by subordinate personnel for clarity, completeness, accuracy, and conformance with agency policies. Routes approved reports and records to designated individuals, such as DIRECTOR, REGULATORY AGENCY (government ser.) 188.117-134 for action or for information. May participate in or make initial or advanced level investigations, tests, or rulings. May testify in court or before control or review board. May be required to be certified in designated speciality area. May be designated according to function or agency as Business Regulation Investigator (government ser.); Child Day Care Program Supervisor (government ser.); Feed Inspection Supervisor (government ser.); Insurance Licensing Supervisor (government ser.); Meat And Poultry Specialist Supervisor (government ser.); Petroleum Products District Supervisor (government ser.); Poultry Specialist Supervisor (government ser.); Public Utilities Complaint Analyst Supervisor (government ser.); Supervisor, Weights And Measures, Gas And Oil Inspection (government ser.). Workers involved in these activities may be identified by different titles according to classification used by various agencies.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

168.261-010 RADIATION-PROTECTION SPECIALIST (government ser.)

Tests x-ray equipment, inspects areas where equipment is used, and evaluates operating procedures to detect and control radiation hazards: Visits hospitals, medical offices, and other establishments to test x-ray machines and fluoroscopes and to inspect premises. Tests equipment to determine that kilovolt potential, alignment of components, and other elements of equipment meet standards for safe operation, using specialized instruments and procedures. Operates equipment to determine need for calibration, repair, or replacement of tubes or other parts. Measures density of lead shielding in walls, using radiometric equipment. Computes cumulative radiation levels and refers to regulations to determine if amount of shielding is sufficient to absorb radiation emissions. Examines license of equipment operator for authenticity and observes operating practices to determine competence of operator to use equipment. Confers with physicians, dentists, and x-ray personnel to explain procedures and legal requirements pertaining to use of equipment. Demonstrates exposure techniques to improve procedures and minimize amount of radiation delivered to patient and operator. Reviews plans and specifications for proposed x-ray installations for conformance to legal requirements and radiation safety practices. Contacts organizations submitting inadequate specifications to explain changes in shielding or layout needed to conform to regulations.
GOE: 11.10.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

168.264-010 INSPECTOR, AIR-CARRIER (government ser.) alternate titles: aviation-safety officer; operations inspector

Inspects aircraft and maintenance base facilities to assure conformance with federal safety and qualifications standards: Examines aircraft maintenance record and flight log to determine if service checks, maintenance checks, and overhauls were performed at intervals prescribed. Inspects landing gear, tires, and exterior of fuselage, wings, and engine for evidence of damage or corrosion and recommends repair. Examines access plates and doors for security. Inspects new, repaired, or modified aircraft, according to checklist, to determine structural and mechanical airworthiness, using handtools and test instruments. Starts aircraft and observes gauges, meters, and other instruments to detect evidence of malfunction. Examines electrical systems and accompanies flight crew on proving flight to test instruments. Inventories spare parts to determine whether stock meets requirements. Analyzes training programs to assure competency of persons operating, installing, and repairing equipment. Informs airline officials of deficiencies. Prepares report of inspection to document findings. Approves or disapproves issuance of certificate of airworthiness. Conducts examinations to test theoretical and practical knowledge of construction, maintenance, repair, and trouble diagnosis for aircraft mechanics license candidates. Investigates air accidents to determine whether cause was due to structural or mechanical malfunction. Required to have federal aviation rating for type of aircraft inspected and pass federal aviation medical certification. May be designated according to specialty as Air-Carrier Electronics Inspector (government ser.); Air-Carrier Maintenance Inspector (government ser.).
GOE: 05.03.06 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

168.264-014 SAFETY INSPECTOR (any industry) alternate titles: safety technician

Inspects machinery, equipment, and working conditions in industrial or other setting to ensure compliance with occupational safety and health regulations: Inspects machines and equipment for accident prevention devices. Observes workers to determine use of prescribed safety equipment, such as glasses, helmets, goggles, respirators, and clothing. Inspects specified areas for fire-prevention equipment and other safety and first-aid supplies. Tests working areas for noise, toxic, and other hazards, using decibel meter, gas detector, and light meter. Prepares report of findings with recommendations for corrective action. Investigates accidents to ascertain causes for use in recommending preventive safety measures and developing safety program. May demonstrate use of safety equipment.
GOE: 11.10.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

168.264-018 GAS INSPECTOR (utilities)

Inspects equipment and facilities used to store, transport, distribute, and measure liquefied petroleum or compressed or natural gas: Examines establishment inspection records to determine that establishment inspection schedule and remedial actions conform to procedures and regulations. Examines containers, piping, tubing, and fittings for leaks and for adherence to government specifications for pressure level, design, construction, and installation. Examines and tests components and support systems, such as relief valves, steam vaporizers, safety devices, electrical equipment, exhaust systems, and vehicles, for conformance with standards and regulations. Connects test equipment, using handtools, and tests calibration of meters and gauges. Inspects above and below ground gas mains to determine that rate of flow, pressure, location, construction, or installation conform to establishment or regulated standards. Maintains records and prepares reports of results of inspections. Discusses and explains procedures and regulations or need for corrective action with establishment or regulatory agency personnel. May be designated according to function, agency, or establishment where employed as Division Field Inspector (utilities); Gas Inspector, Liquefied (government ser.).
GOE: 11.10.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 87

168.267-010 BUILDING INSPECTOR (insurance)

Inspects buildings to determine fire insurance rates: Examines building for type of construction, condition of roof, and fireproofing. Determines risk represented by adjoining buildings, by nature of business, and building contents. Determines availability of fireplugs and firefighting equipment. Completes inspection report. May compute insurance rate.
GOE: 05.03.06 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

168.267-014 CLAIM EXAMINER (insurance)

Reviews settled insurance claims to determine that payments and settlements have been made in accordance with company practices and procedures: Analyzes data used in settling claim to determine its validity in payment of claims. Reports overpayments, underpayments, and other irregularities. Confers with legal counsel on claims requiring litigation.
GOE: 07.02.03 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 77

168.267-018 CUSTOMS IMPORT SPECIALIST (government ser.) alternate titles: customs examiner

Examines, classifies, and appraises imported merchandise according to federal revenue laws, in order to enforce regulations of U.S. Customs Service: Examines and appraises merchandise and accompanying documentation according to import requirements, considering legal restrictions, country of origin, import quotas, and current market values. Requests laboratory testing and analyses of merchandise as needed. Determines duty and taxes to be paid on imported merchandise, considering its classification and value. Interviews importers and examines their records to verify integrity of invoices. Determines and reports evidence of intent to defraud and violations of trademark, copyright, and marking laws. Notifies other governmental agencies responsible for particular import inspection, or when apparent import violations concern other agency regulations. Issues or denies permits to release imported merchandise for delivery, depending on importer's meeting legal requirements. Appraises seized and unclaimed merchandise to be sold at public auction. Assists federal attorneys in preparation and trial of cases in customs court by supplying technical information and advice, securing qualified witnesses and evidence, and appearing as a government witness. May plan, coordinate, and evaluate work of import inspection team. May defend appraisal of merchandise during court appeals by importers.
GOE: 11.10.04 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

168.267-022 CUSTOMS INSPECTOR (government ser.)

Inspects cargo, baggage, articles worn or carried by persons, and vessels, vehicles, or aircraft entering or leaving United States to enforce customs and related laws: Boards carriers arriving from foreign ports, and inspects and searches carriers to determine nature of cargoes. Superintends loading and unloading of cargo to ensure compliance with customs, neutrality, and commerce laws. Weighs, measures, and gauges imported goods, using calipers, measuring rods, scale, and hydrometer. Examines baggage of passengers arriving from foreign territory to discover contraband or undeclared merchandise. Conducts body search of passengers or crewmembers. Questions suspicious persons to clarify irregularities and explains laws and regulations to tourists or others unfamiliar with customs statutes and procedures. Seals hold and compartments containing sea stores (supplies for ship's personnel) to prevent illegal sale or smuggling of dutiable merchandise. Examines crew and passenger lists, manifests, pratiques, store lists, declarations of merchandise, and ships' documents and issues required permits. Classifies articles and assesses and collects duty on merchandise. Writes reports of findings, transactions, violations, and discrepancies. Seizes contraband and undeclared merchandise and detains or arrests persons involved in violations. May perform preliminary immigration screening of persons entering United States. May take samples of merchandise for appraising. May be designated according to type of inspection performed as Baggage Inspector (government ser.); Border Inspector (government ser.); Cargo Inspector (government ser.).
GOE: 11.10.04 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

168.267-026 DEALER-COMPLIANCE REPRESENTATIVE (retail trade; wholesale tr.) alternate titles: field representative

Inspects franchise dealerships and distributorships to ascertain compliance with company operating policies and procedures and to require adherence in detected instances: Inspects inventory and operating records to ascertain that only approved products are sold and approved operating procedures followed by

dealer. Inspects premises and observes working conditions to ensure compliance with company and governmental standards of safety and sanitation. May ascertain that dealers are paying bills due company and may collect monies due. May advise dealers on financial aspects of operating franchise.
GOE: 11.10.05 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

168.267-030 DINING-SERVICE INSPECTOR (r.r. trans.) alternate titles: service inspector

Inspects railroad dining car facilities and service and investigates complaints to ensure that cleanliness and service standards are maintained: Inspects cooking area and utensils to ensure that they are clean and sanitary. Inspects food and observes preparation to ensure that food is served in sanitary and appetizing manner. Observes WAITERS/WAITRESSES, DINING CAR (r.r. trans.) as they serve food to patrons to ensure that service is efficient and courteous. Investigates complaints by patrons of poor service or discourtesy. Recommends service improvements and operating efficiencies. Prepares reports of complaints and action taken.
GOE: 11.10.05 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

168.267-034 DRIVER'S LICENSE EXAMINER (government ser.)

Gives written and visual acuity tests and conducts road performance tests to determine applicant's eligibility for driver's license: Scores written and visual acuity tests and issues and collects fees for instruction permits. Conducts road tests and observes applicant's driving ability throughout specified maneuvers and compliance with traffic safety rules. Rates ability for each maneuver. Collects fees and issues licenses. Lectures to school and community groups concerning driver improvement program. May inspect brakes, stop and signal lights, and horn to determine if applicant's vehicle is safe to operate.
GOE: 07.01.07 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

168.267-038 ELIGIBILITY-AND-OCCUPANCY INTERVIEWER (government ser.)

Interviews and investigates prospective tenants to determine eligibility for public low-rent housing: Receives and processes initial or reactivated applications for public housing. Interviews applicant to obtain additional information such as family composition, health and social problems, veteran status, rent paying ability, net assets, and need for housing assistance. Advises applicant on eligibility requirements, methods of selecting tenants, and housing opportunities. Contacts employers, and public and private health and welfare agencies to verify applicant information. Provides information to tenant or applicant on availability of community resources for financial or social welfare assistance. Determines applicant eligibility according to agency rules and policies. Selects and refers eligible applicant to MANAGER, HOUSING PROJECT (profess. & kin.). Notifies eligible applicant of vacancy and assignment procedures. Computes rent in proportion to applicant's income. Receives and records security deposit and advance rent from selected applicant. Conducts annual, interim, and special housing reviews with tenants. May assist in resolving tenant complaints on maintenance problems. May visit home to determine housekeeping habits, verify housing condition, and establish housing need.
GOE: 07.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

168.267-042 FOOD AND DRUG INSPECTOR (government ser.)

Inspects establishment where foods, drugs, cosmetics, and similar consumer items are manufactured, handled, stored, or sold to enforce legal standards of sanitation, purity, and grading: Visits specified establishments to investigate sanitary conditions and health and hygiene habits of persons handling consumer products. Collects samples of products for bacteriological and chemical laboratory analysis. Informs individuals concerned of specific regulations affecting establishment. Destroys subgrades, or prohibits sale of impure, toxic, damaged, or misbranded items. Questions employees, vendors, consumers, and other principals to obtain evidence for prosecuting violators. Ascertains that required licenses and permits have been obtained and are displayed. Prepares reports on each establishment visited, including findings and recommendations for action. May negotiate with marketers and processors to effect changes in facilities and practices, where undesirable conditions are discovered that are not specifically prohibited by law. May grade products according to specified standards. May test products, using variety of specialized test equipment, such as ultraviolet lights and filter guns. May investigate compliance with or violation of public sanitation laws and regulations and be designated Sanitary Inspector (government ser.).
GOE: 11.10.03 STRENGTH: L GED: R5 M4 L5 SVP: 6 DLU: 77

168.267-046 INSPECTOR, FURNITURE AND BEDDING (government ser.)

Inspects bedding materials and furniture padding to enforce public health laws and to investigate consumer complaints: Inspects premises and operations at furniture and bedding factories, warehouses, renovating plants, and sales outlets to ascertain compliance with state furniture and bedding sanitation laws. Examines labels on furniture and bedding items to ascertain compliance with fiber content and labeling regulations. Examines stock of used goods, condition of fumigation chambers, and use of prescribed chemicals. Conducts laboratory analyses on sample fibers, feathers, and materials to determine usability and cleanliness, utilizing standardized microscopic examination and chemical tests. May cite or arrest suspected violators and testify in court.
GOE: 11.10.03 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

168.267-050 INSPECTOR, GOVERNMENT PROPERTY (government ser.)

Inspects government-owned equipment and materials in hands of private contractors to prevent waste, damage, theft, and other irregularities. Reviews inventory reports and similar records to detect discrepancies in utilization of materials. Recommends legal or administrative action to protect government property.
GOE: 11.10.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

168.267-054 INSPECTOR, INDUSTRIAL WASTE (government ser.)

Inspects industrial and commercial waste disposal facilities and investigates source of pollutants in municipal sewage and storm-drainage system to ensure conformance with ordinance and permit requirements: Visits establishments to determine possession of industrial waste permits and to inspect waste treatment facilities, such as floor drains, sand traps, settling and neutralizing tanks, and grease removal equipment for conformance with regulations. Extracts samples of waste from sewers, storm drains, and water courses for laboratory tests. Conducts field tests for acidity, alkalinity, and other characteristics to determine if discharged wastes will cause water pollution or deterioration of sewerage facilities. Inspects sewers and storm drains to determine presence of explosive gases, using gas-analysis equipment. Reviews plans of proposed waste-treatment facilities and inspects construction to ensure conformance with ordinances. Issues citations to apparent violators of sanitation code or water-quality regulations. Compiles written reports of investigations and findings, and actions taken or recommended. May enforce ordinances concerned with commercial hauling and disposal of contents from cesspools and septic tanks into sewers. May inspect water wells for contamination and conformance with legal construction standards, and order closing of unsanitary or unsafe wells. May inspect solid waste disposal facilities, such as sanitary landfills and chemical disposal sites.
GOE: 05.03.06 STRENGTH: M GED: R5 M4 L5 SVP: 6 DLU: 79

168.267-058 INSPECTOR, MOTOR VEHICLES (government ser.) alternate titles: automobile inspector; motor-transport inspector; weigh-station inspector

Inspects motor vehicles and cargoes for compliance with statutory regulations: Reviews employer records to determine that accidents, traffic violations, and medical information are recorded according to federal and state regulations. Advises shipper of methods to improve cargo security and record keeping to account for shortage or theft. Interprets applicable regulations and suggests method of self-inspection to accomplish voluntary compliance with code. Inspects vehicle systems, such as lights, brakes, tires, directional signals, exhaust systems, and warning devices, to detect excessive wear or malfunction. Measures interior and exterior noise levels, using decibel meter. Measures efficiency of emission-control devices, using electronic test apparatus. Reviews shipping papers to identify hazardous cargo, such as explosives, poisons, or combustibles. Inspects manner in which hazardous cargo is secured to prevent accidental spillage. Computes and records weight of commercial trucks at highway weigh station or uses portable scale to determine gross weight and distribution of load over axles. Reviews commercial vehicle log to verify driver has not exceeded allowable driving hours and required permits and licenses are displayed. Declares vehicle or driver out-of-service for violation of intra- or interstate commerce regulations. Inspects buses to determine compliance with public transport regulations. May accompany bus drivers to observe conduct and observance with safety precautions. May inspect establishments that rebuild containers used to hold hazardous materials. May testify in legal proceedings.
GOE: 11.10.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 78

168.267-062 INVESTIGATOR (government ser.)

Investigates regulated activities to assure compliance with federal, state, or municipal laws: Locates and interviews plaintiffs, witnesses, or representatives of business or government to gather facts relating to alleged violation. Observes conditions to verify facts indicating violation of law relating to such activities as revenue collection, employment practices, or fraudulent benefit claims. Examines business, personal, or public records and documents to establish facts and authenticity of data. Investigates character of applicant for special license or permit. Investigates suspected misuses of license or permit. Prepares correspondence and reports of investigations for use by administrative or legal authorities. Testifies in court or at administrative proceedings concerning findings of investigation. May serve legal papers. May be required to meet licensing or certification standards established by regulatory agency concerned. May be designated according to function or agency where employed as Inspector, Weights And Measures (government ser.); Investigator, Internal Revenue (government ser.); Investigator, Welfare (government ser.); Postal Inspector (government ser.); Investigator, Claims (government ser.).
GOE: 11.10.01 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 77

168.267-066 LICENSE INSPECTOR (government ser.)

Visits establishments licensed by local governments to ascertain that valid licenses and permits are displayed and that licensing standards are being upheld. Prepares report on violators and recommends action. Warns violators of minor or unintentional infractions. May arrest violators. May be designated according to class of establishment visited as Rooming-House Inspector (government ser.); Tavern Inspector (government ser.).
GOE: 11.10.03 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

168.267-070 LOGGING-OPERATIONS INSPECTOR (forestry; logging)

Inspects contract logging operations to ensure adherence to contract provisions and safety laws and to prevent loss of timber through breakage and damage to residual stand: Examines logging area for utilization practices, slash disposal, sanitation, observance of boundaries, and safety precautions. Issues remedial instructions for violations of contract agreement and fire and safety regula-

tions, and prepares report of logging method, efficiency, and progress. May initiate bid requests and negotiate terms of contracts with logging contractors.
GOE: 03.01.04 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

168.267-074 MINE INSPECTOR (mine & quarry) alternate titles: check viewer; safety inspector

Inspects underground or open-pit mines to ascertain compliance with contractual agreements and with health and safety laws: Inspects for rotted or incorrectly placed timbers, dangerously placed or defective electrical and mechanical equipment, improperly stored explosives, and other hazardous conditions. Tests air quality to detect toxic or explosive gas or dust, using portable gas-analysis equipment in order to control health hazards and to reduce injuries and fatalities. Observes mine activities to detect violations of federal and state health and safety standards. Inspects mine workings to verify compliance with contractual agreements concerning production rates or mining within specified limits. May instruct mine workers in safety and first aid procedures. May be designated according to type of mine inspected as Coal-Mine Inspector (mine & quarry); Metal-Mine Inspector (mine & quarry). May specialize in inspection of specific conditions and be designated Gas Inspector (mine & quarry). When employed by governmental agency (instead of mine operator), conducts periodic mine inspections specifically to enforce federal or state mining laws and is known as Mine Inspector, Federal (government ser.); Mine Inspector, State (government ser.).
GOE: 11.10.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 80

168.267-078 MORTICIAN INVESTIGATOR (government ser.)

Inspects mortuaries for sanitary conditions, equipment and procedures, and competence of personnel. Examines registration credentials of trainees and licenses of funeral directors to ensure compliance with state licensing requirements. Investigates complaints and recommends license revocation or other action. May be required to hold mortician's license.
GOE: 11.10.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

168.267-082 AGRICULTURAL-CHEMICALS INSPECTOR (government ser.)

Inspects establishments where agricultural service products, such as livestock feed and remedies, fertilizers, and pesticides, are manufactured, sold, or used to ensure conformance to laws regulating product quality and labeling: Visits processing plants, distribution warehouses, sales outlets, agricultural pest control service organizations, and farmers to collect product samples for analysis and to examine fresh and dried produce for spray residue. Inspects product label information concerning ingredients and advertising claims for conformance to chemical analysis of ingredients and documented effects of use. Investigates suspected violations of product quality and labeling laws. Interviews farmers, merchants, and others to determine nature of suspected violations and to obtain documented evidence to be used in legal action against violators. Calls on dealers to determine that licensing requirements have been met, and calls on manufacturers and distributors to collect delinquent tonnage reports. Prepares reports of all inspections and investigations for review by supervisory personnel and for use as evidence in legal action initiated by others.
GOE: 11.10.03 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 86

168.267-086 HAZARDOUS-WASTE MANAGEMENT SPECIALIST (government ser.)

Conducts studies on hazardous waste management projects and provides information on treatment and containment of hazardous waste: Participates in developing hazardous waste rules and regulations to protect people and environment. Surveys industries to determine type and magnitude of disposal problem. Assesses available hazardous waste treatment and disposal alternatives, and costs involved, to compare economic impact of alternative methods. Assists in developing comprehensive spill prevention programs and reviews facility plans for spill prevention. Participates in developing spill-reporting regulations and environmental damage assessment programs. Prepares reports of findings concerning spills and prepares material for use in legal actions. Answers inquiries and prepares informational literature to provide technical assistance to representatives of industry, government agencies, and to general public. Provides technical assistance in event of hazardous chemical spill and identifies pollutant, determines hazardous impact, and recommends corrective action.
GOE: 11.10.03 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 86

168.267-090 INSPECTOR, WATER-POLLUTION CONTROL (government ser.)

Inspects sites where discharges enter state waters and investigates complaints concerning water pollution problems: Inspects wastewater treatment facilities at sites, such as mobile home parks, sewage treatment plants, and other sources of pollution. Inspects lagoons and area where effluent enters state waters for such features as obvious discoloration of water, sludge, algae, rodents, and other conditions. Informs owner when unacceptable or questionable conditions are present and recommends corrective action. Notifies mobile laboratory technicians when sampling is required. Advises property owners, facility managers, and equipment operators concerning pollution control regulations. Investigates complaints concerning water pollution problems. Compiles information for pollution control discharge permits. Prepares technical reports of investigations.
GOE: 11.10.03 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

168.267-094 MARINE-CARGO SURVEYOR (business ser.)

Inspects cargoes of seagoing vessels to certify compliance with national and international health and safety regulations in cargo handling and stowage: Reads vessel documents that set forth cargo loading and securing procedures, capacities, and stability factors to ascertain cargo capabilities according to design and cargo regulations. Advises crew in techniques of stowing dangerous and heavy cargo, such as use of extra support beams (deck bedding), shoring, and additional stronger lashings, according to knowledge of hazards present when shipping grain, explosives, logs, and heavy machinery. Inspects loaded, secured cargo in holds and lashed to decks to ascertain that pertinent cargo handling regulations have been observed. Issues certificate of compliance when violations are not detected. Recommends remedial procedures to correct deficiencies. Measures ship holds and depth of fuel and water in tanks, using sounding line and tape measure, and reads draft markings to ascertain depth of vessel in water. Times roll of ship, using stopwatch. Calculates hold capacities, volume of stored fuel and water, weight of cargo, and ship stability factors, using standard mathematical formulas and calculator. Analyzes data obtained from survey, formulates recommendations pertaining to vessel capacities, and writes report of findings. Inspects cargo handling devices, such as boom, hoists, and derricks, to identify need for maintenance.
GOE: 11.10.03 STRENGTH: L GED: R4 M4 L4 SVP: 9 DLU: 86

168.267-098 PESTICIDE-CONTROL INSPECTOR (government ser.)

Inspects operations of distributors and commercial applicators of pesticides to determine compliance with government regulations on handling, sale, and use of pesticides: Inspects premises of wholesale and retail distributors to ensure that registered pesticides are handled in accordance with state and federal regulations. Determines that handlers possess permits and sell restricted pesticides only to authorized users. Evaluates pesticides for correct labeling, misbranding, misrepresentation, or adulteration, and confiscates or quarantines unacceptable pesticides. Inspects operations of commercial applicators of pesticides and observes application methods to ensure correct use of equipment, application procedures, and that applicators possess valid permits. Determines that accurate records are kept to show pesticides used, dosage, times, places, and methods of applications. Inspects premises to ensure that storage and disposal of pesticides conform to regulations. Investigates complaints concerning pesticides and uses. Identifies insect or disease, recommends treatment, and authorizes emergency use of suitable restricted pesticides to respond to emergency situations, such as insect infestations or outbreaks of plant disease.
GOE: 11.10.03 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 86

168.267-102 PLAN CHECKER (government ser.)

Examines commercial and private building plans and inspects construction sites to ensure compliance with building code regulations: Reviews building plans for completeness and accuracy. Examines individual plan components to ensure that all code mandated items are included. Calculates footage between building components, such as doors, windows, and parking areas and amount of area occupied by components to ensure compliance with code. Notes instances of noncompliance on plans and correction sheet and suggests modifications to bring plans into compliance. Approves and signs plans meeting code requirements. Inspects building sites and buildings to ensure construction follows plans. Submits reports detailing items of noncompliance to builder for correction. Provides code information to individuals planning buildings. Issues occupancy certificates to building owners when completed buildings are in compliance with codes. Tours jurisdictional area to detect unapproved or noncompliance construction. Proposes studies to improve or update building codes. Testifies at appeal hearings regarding buildings alleged to be not in compliance with codes.
GOE: 05.03.06 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 86

168.267-106 REGISTRATION SPECIALIST, AGRICULTURAL CHEMICALS (government ser.)

Reviews and evaluates information on applications for registration of products containing dangerous chemicals for compliance with statutory regulations: Reads registration applications from manufacturers and distributors of pesticides, fertilizers, and other products containing dangerous chemicals. Evaluates label information to determine that directions for use and claims for effectiveness of product are stated clearly and accurately. Reviews statements concerning product ingredients, effects of misuse, and administration of antidotes for adequacy of information and conformance to regulatory requirements for substances. Forwards approved applications to other personnel for registration. Contacts manufacturers and distributors of products not meeting standards to clarify regulations and to suggest changes in label information to permit registration. Prepares, organizes, and maintains records to document activities and provide reference materials. Conducts studies and investigations of faulty labeling or use of products as directed by agricultural agency personnel.
GOE: 11.10.03 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 86

168.267-110 SANITATION INSPECTOR (government ser.)

Inspects community land areas and investigates complaints concerning neglect of property and illegal dumping of refuse to ensure compliance with municipal code: Inspects designated areas periodically for evidence of neglect, excessive litter, and presence of unsightly or hazardous refuse. Interviews residents and inspects area to investigate reports of illegal dumping and neglected land. Locates property owners to explain nature of inspection and investigation findings and to encourage voluntary action to resolve problems. Studies laws and statutes in municipal code to determine specific nature of code violation and type of action to be taken. Issues notices of violation to land owners not complying with request for voluntary correction of problems. Issues notices of abatement to known violators of dumping regulations and informs other munici-

l agencies of need to post signs forbidding illegal dumping at designated es. Prepares case materials when legal action is required to solve problems. onducts informational meetings for residents, organizes neighborhood cleanup ojects, and participates in campaigns to beautify city to promote community terest in eliminating dangerous and unsightly land use practices.
OE: 11.10.03 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 86

68.267-114 EQUAL OPPORTUNITY OFFICER (any industry)
Monitors company contracts to determine affirmative action requirements and cilitate compliance: Reviews contracts to determine company actions required meet equal opportunity provisions of local, state, or federal laws. Studies qual opportunity complaints to clarify issues, and meets with personnel inolved to arbitrate and settle disputes. Confers with supervisory personnel to erify or document alleged violations of law, such as failure to post notices, ocess grievances, or correct ethnic or other imbalances. Prepares report of ndings and makes recommendations for corrective action. Participates with ANAGER, PERSONNEL (profess. & kin.) 166.117-018 in addressing and relving issues involving company hiring and related personnel policies.
OE: 11.10.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 87

68.287-010 INSPECTOR, AGRICULTURAL COMMODITIES (government ser.)
Inspects agricultural commodities, processing equipment, and facilities to enrce compliance with governmental regulations: Inspects horticultural products, ch as fruits, vegetables, and ornamental plants to detect disease or infestations armful to consumers or agricultural economy. Inspects live animals and procsing establishments to detect disease or unsanitary conditions. Compares and with registry to identify owner. Examines, weighs, and measures comodities such as poultry, eggs, mutton, beef, and seafood to certify wholesomess, grade, and weight. Examines viscera to detect spots or abnormal growths. ollects sample of pests or suspected diseased material and routes to laboratory r identification and analysis. Writes report of findings and advises grower or ocessor of corrective action. May testify in legal proceedings. May be reured to hold U.S. Department of Agriculture license for each product inected. May be designated according to type of commodity or animal inected.
OE: 11.10.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

68.287-014 INSPECTOR, QUALITY ASSURANCE (government ser.) alternate titles: procurement inspector
Inspects products manufactured or processed by private companies for govnment use to ensure compliance with contract specifications: Examines comany's records to secure such information as size and weight of product and sults of quality tests. Inspects product to determine compliance with order ecifications, company's quality control system for compliance with legal reuirements, and shipping and packing facilities for conformity to specified andards. Submits samples of product to government laboratory for testing as dicated by department procedures. Stamps mark of approval or rejection on oduct and writes report of examinations. May specialize in lumber, machin-y, petroleum products, paper products, electronic equipment, furniture, or her specific product or group of related products.
OE: 05.03.06 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

68.287-018 INSPECTOR, RAILROAD (government ser.)
Examines railroad equipment and systems to verify compliance with Federal afety regulations: Inspects railroad locomotives, engines, and cars to ensure aderence to safety standards governing condition of mechanical, structural, elecical, pneumatic, and hydraulic elements or systems, using blueprints, scheatic diagrams, gauges, handtools, and test equipment. Tests railroad signals determine warning light responses to commands from dispatcher or ipswitches, using simulator. Inspects roadbeds to detect damaged, worn, or dective equipment, such as rails, ties, bolts, fishplates, or switches. Inspects contion and movement of railroad cars containing flammable or explosive mateals to ensure safe loading, switching, and transport. Reviews records, operatg practices, and accident history to verify compliance with safety regulations. sues citations to railroad employees of condition or equipment found in viotion of standards. Investigates accidents and inspects wreckage to determine uses. Prepares inspection reports for use by administrative or judicial authores.
OE: 05.03.06 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

68.367-010 ATTENDANCE OFFICER (education) alternate titles: truant officer
Investigates continued absences of pupils from public schools to determine such absences are lawful and known to parents.
OE: 07.01.06 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

68.367-014 RATER, TRAVEL ACCOMMODATIONS (profess. & kin.)
Inspects and evaluates travel and tourist accommodations in order to rate falities to be listed in guidebook produced by employing organization, such as itomobile club, tourism promoters, or travel guide publishers: Travels to and ispects travel accommodations and tourist facilities, such as hotels, motels, resurants, campgrounds, vacation resorts, and other similar year-round or seaonal recreational establishments in order to observe conditions and gather data be used in determining ratings. Rates or re-rates establishment according to redetermined standards concerning quantity and quality of such factors as conenience of location, variety of facilities available, degree of cleanliness mainined, efficiency of services offered, range of rates charged, and other matters of concern to travelers. Reports findings to employer by filling out forms containing ratings and reasons for conclusions and judgments. May sell to establishments concerned advertising space in publication (such as dining guide, tourist magazine, or recreational-area catalogs) in which ratings are to appear.
GOE: 11.10.05 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 77

168.367-018 CODE INSPECTOR (government ser.)
Inspects existing residential buildings and dwelling units, visually, to determine compliance with city ordinance standards and explains ordinance requirements to concerned personnel: Obtains permission from owners and tenants to enter dwellings. Visually examines all areas to determine compliance with ordinance standards for heating, lighting, ventilating, and plumbing installations. Measures dwelling units and rooms to determine compliance with ordinance space requirements, using tape measure. Inspects premises for overall cleanliness, adequate disposal of garbage and rubbish, and for signs of vermin infestation. Prepares forms and letters advising property owners and tenants of possible violations and time allowed for correcting deficiencies. Consults file of violation reports and revisits dwellings at periodic intervals to verify correction of violations by property owners and tenants. Explains requirements of housing standards ordinance to property owners, building contractors, and other interested parties.
GOE: 05.03.06 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 86

168.367-022 PERSONNEL QUALITY ASSURANCE AUDITOR (electron. comp.)
Audits work activities of processing production workers to verify conformance of activities to quality assurance standards, applying knowledge of job performance requirements, equipment operation standards, and product processing specifications: Obtains quality assurance personnel check list. Observes and asks worker questions pertaining to job functions. Reads processing information, such as worker logs, product processing sheets, and specification sheets, to verify that records adhere to quality assurance specifications. Observes worker using equipment to verify that equipment is being operated and maintained according to quality assurance standards, applying knowledge of equipment operation. Writes audit information on quality assurance form and keys information into computer, using keyboard. Submits audit report to supervisory personnel.
GOE: 11.10.05 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 86

168.387-010 OPENER-VERIFIER-PACKER, CUSTOMS (government ser.)
Unpacks, verifies, and repacks mail shipments of imported merchandise to assure compliance with federal revenue laws and U.S. Customs Service Regulations: Determines containers to open, according to nature of merchandise, country of origin, and shipper. Unpacks containers and visually verifies identity and quantity of merchandise against declaration or invoice. Weighs and measures commodities. May write descriptive verification as compared with declaration or invoice. Lists damaged goods. Records evidence of tampering, pilfering, shortages, excesses, or other unusual condition of merchandise. Inspects goods for violations of marking, trademark, or copyright regulations. Inspects containers for contraband and smuggled goods. May disassemble and drill into merchandise and containers suspected of containing contraband or undeclared items, using handtools and electric power drill. Records date, name, and address of importer or sender on mail entry form. Unpacks and lays out representative samples of merchandise for examination by CUSTOMS IMPORT SPECIALIST (government ser.). Repacks merchandise after examination, for release to postal service and subsequent delivery. Attaches envelope containing completed mail entry form to container. Hand stamps container to indicate examination completed and need to collect duty. May testify during court appeals by importers.
GOE: 05.09.03 STRENGTH: H GED: R3 M3 L3 SVP: 5 DLU: 77

169 OCCUPATIONS IN ADMINISTRATIVE SPECIALIZATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with administrative specializations.

169.107-010 ARBITRATOR (profess. & kin.)
Arbitrates disputes between labor and management to bind both to specific terms and conditions of labor contract: Conducts hearing to evaluate contentions of parties regarding disputed contract provisions. Analyzes information obtained, using knowledge of facts in issue and industry practices. Renders binding decision to settle dispute, protect public interests, prevent employee wage loss, and minimize business interruptions. Issues report concerning results of arbitration. May serve exclusively for particular case for which selected by parties and be known as Ad Hoc Arbitrator (profess. & kin.). May serve for all disputes concerning specific agreements and be known as Umpire (profess. & kin.); Referee (profess. & kin.).
GOE: 11.04.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

169.117-010 EXECUTIVE SECRETARY, STATE BOARD OF NURSING (government ser.)
Directs activities of State Board of Nursing: Develops procedures relative to licensure by examination or endorsement, renewal of licenses, certification to other states, and discipline of licensees. Assumes responsibility for keeping board informed of relevant matter to aid in policy-making and decisions. Determines specific needs of program and provides for written plans and statement

of policies. Ascertains number, scope, and responsibility of positions on board, selects staff, and delegates duties. Directs and supervises activities of staff and evaluates performance. Establishes system of record keeping and maintains up-to-date, comprehensive records of board activities and office procedures. Estimates and submits request for budget. Collects, analyzes, and prepares for publication data relating to nursing education and licensure. Initiates and cooperates in research projects. Participates in interpreting nursing laws, board rules and policies, and trends in nursing and nursing education. Issues licenses and recommends revocations and suspensions. Surveys schools of nursing to ensure compliance with legal requirements.
GOE: 11.05.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

169.117-014 GRANT COORDINATOR (profess. & kin.)
Develops and coordinates grant-funded programs for agencies, institutions, local government, or units of local government, such as school systems or metropolitan police departments: Reviews literature dealing with funds available through grants from governmental agencies and private foundations to determine feasibility of developing programs to supplement local annual budget allocations. Discusses program requirements and sources of funds available with administrative personnel. Confers with personnel affected by proposed program to develop program goals and objectives, outline how funds are to be used, and explain procedures necessary to obtain funding. Works with fiscal officer in preparing narrative justification for purchase of new equipment and other budgetary expenditures. Submits proposal to officials for approval. Writes grant application, according to format required, and submits application to funding agency or foundation. Meets with representatives of funding sources to work out final details of proposal. Directs and coordinates evaluation and monitoring of grant-funded programs, or writes specifications for evaluation or monitoring of program by outside agency. Assists department personnel in writing periodic reports to comply with grant requirements. Maintains master files on grants. Monitors paperwork connected with grant-funded programs.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 86

169.127-010 CIVIL PREPAREDNESS TRAINING OFFICER (government ser.)
Instructs paid and volunteer workers in techniques for meeting disaster situations: Conducts classes in emergency techniques, such as first aid, flood protection, firefighting, shelter management, disaster communications and organization, use of radiological monitoring equipment, and post-attack operations. Confers with local government and federal authorities and with representatives of police, fire, sanitation, and public works departments to coordinate training. May direct or participate in preparation of geographic surveys of local areas to aid in formulating emergency survival plans. May specialize in preparing and distributing emergency preparedness information and be designated Civil Preparedness Public Information Officer (government ser.).
GOE: 11.07.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

169.167-010 ADMINISTRATIVE ASSISTANT (any industry) alternate titles: administrative analyst; administrative officer
Aids executive in staff capacity by coordinating office services, such as personnel, budget preparation and control, housekeeping, records control, and special management studies: Studies management methods in order to improve workflow, simplify reporting procedures, or implement cost reductions. Analyzes unit operating practices, such as recordkeeping systems, forms control, office layout, suggestion systems, personnel and budgetary requirements, and performance standards to create new systems or revise established procedures. Analyzes jobs to delimit position responsibilities for use in wage and salary adjustments, promotions, and evaluation of workflow. Studies methods of improving work measurements or performance standards. Coordinates collection and preparation of operating reports, such as time-and-attendance records, terminations, new hires, transfers, budget expenditures, and statistical records of performance data. Prepares reports including conclusions and recommendations for solution of administrative problems. Issues and interprets operating policies. Reviews and answers correspondence. May assist in preparation of budget needs and annual reports of organization. May interview job applicants, conduct orientation of new employees, and plan training programs. May direct services, such as maintenance, repair, supplies, mail, and files. May compile, store, and retrieve management data, using computer.
GOE: 11.05.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 88

169.167-014 ADMINISTRATIVE SECRETARY (any industry) alternate titles: executive secretary
Keeps official corporation records and executes administrative policies determined by or in conjunction with other officials: Prepares memorandums outlining and explaining administrative procedures and policies to supervisory workers. Plans conferences. Directs preparation of records, such as notices, minutes, and resolutions for stockholders' and directors' meetings. Directs recording of company stock issues and transfers. Acts as custodian of corporate documents and records. Directs preparation and filing of corporate legal documents with government agencies to conform with statutes. In small organizations, such as trade, civic, or welfare associations, often performs publicity work. Depending on organization, works in line or staff capacity.
GOE: 07.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

169.167-018 CONTACT REPRESENTATIVE (government ser.)
Provides information and assistance to public on government agency programs and procedures: Explains regulations, agency policies, form completion procedures, and determinations of agency to advise individuals regarding obtainment of required documents and eligibility requirements for receiving benefits. Analyzes applications and information for benefits, privileges, or relief from obligations, using knowledge of rules, regulations, and precedent decisions to determine qualifications for benefits and privileges or liability for obligations. Investigates errors or delays in processing of applications for benefits and initiates corrective action. May be designated according to title of agency represented.
GOE: 07.01.01 STRENGTH: S GED: R5 M3 L5 SVP: 6 DLU: 79

169.167-022 FIRE ASSISTANT (government ser.) alternate titles: fire-control assistant; fire deputy
Advises local governments, public, and timber interests on prevention and control of forest fires: Inspects forest areas and standby fire fighting crews in fire prevention and control program. Prepares public-information materials and campaigns on fire prevention techniques. Gives instructions to fire fighting crews in methods of controlling forest fires, considering such factors as terrain, wind conditions, history of rainfall in fire area, and location of population centers. Gives public lectures to campers, youth groups, and hunters to promote responsible use of fire and inflammable materials in forest areas. May direct activities of fire suppression crews. May participate in fighting fires.
GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

169.167-026 LABORATORY ASSISTANT, LIAISON INSPECTION (steel & rel.) alternate titles: laboratory coordinator
Acts as liaison between manufacturer and private consumer or government agency to expedite testing and inspection of products according to contract specifications: Notifies consumer representative or government inspector of availability of products for testing. Designates tests required according to individual specifications. Reviews laboratory reports for completeness and accuracy and for test characteristics, such as strength, hardness, and quality of products. Promotes good will among plant divisions to facilitate expediting of orders.
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

169.167-030 MANAGER, DATA PROCESSING (profess. & kin.) alternate titles: director, data processing; director, management information systems
Directs and coordinates development and production activities of data processing department: Consults with management to determine information requirements of management, scientists, or engineers, determine boundaries and priorities of new projects, and discuss system capacity and equipment acquisitions. Confers with department heads involved with proposed projects to ensure cooperation and further define nature of project. Consults with COMPUTER SYSTEMS HARDWARE ANALYST (profess. & kin.) 033.167-010 to define equipment needs. Reviews project feasibility studies. Establishes work standards. Assigns and schedules work, or delegates work to subordinate managers and supervisors, and reviews work. Interprets policies, purposes, and goals of organization to subordinates. Prepares progress reports to inform management of project status and deviation from goals. Contracts with management specialists, technical personnel, or vendors to solve problems. Directs COMPUTER PROCESSING SCHEDULER (clerical) 221.362-030 to change computer operating schedule to meet department priorities. Reviews reports of computer and peripheral equipment production, malfunctions, and maintenance to ascertain costs and plan department operating changes. Analyzes department workflow and workers' job duties to recommend reorganization or departmental realignment within company. Participates in decisions concerning staffing and promotions within data processing department. Directs training of subordinates. May prepare proposals and solicit sale of systems analysis, programming, and computer services to outside firms. May assist staff to diagnose and solve computer equipment problems. May participate in technical projects, such as writing equipment specifications or developing computer programs for specified applications.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 88

169.167-034 MANAGER, OFFICE (any industry) alternate titles: chief clerk; manager, administrative services
Coordinates activities of clerical personnel in establishment or organization: Analyses and organizes office operations and procedures, such as typing, bookkeeping, preparation of payrolls, flow of correspondence, filing, requisition of supplies, and other clerical services. Evaluates office production, revises procedures, or devises new forms to improve efficiency of workflow. Establishes uniform correspondence procedures and style practices. Formulates procedures for systematic retention, protection, retrieval, transfer, and disposal of records. Plans office layouts and initiates cost reduction programs. Reviews clerical and personnel records to ensure completeness, accuracy, and timeliness. Prepares activities reports for guidance of management, using computer. Prepares employee ratings and conducts employee benefit and insurance programs, using computer. Coordinates activities of various clerical departments or workers within department. May prepare organizational budget and monthly financial reports. May hire, train, and supervise clerical staff. May compile, store, and retrieve managerial data, using computer.
GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 88

169.167-038 ORDER DEPARTMENT SUPERVISOR (any industry)
Coordinates activities of personnel of order-writing department: Plans and initiates order-writing procedures, using knowledge of company products, pricing methods, and discount classifications. Directs establishment and mainte-

e of customer order records, such as discount classifications, cost basis,
nal routing, and transportation information. Supervises workers writing mas-
orders used by production, shipping, invoicing, advertising, cost, and esti-
ng departments.
07.05.03 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 86

167-042 PARK RANGER (government ser.) alternate titles: ranger
nforces laws, regulations, and policies in state or national park. Registers
cles and visitors, collects fees, and issues parking and use permits. Provides
rmation pertaining to park use, safety requirements, and points of interest.
cts traffic, investigates accidents, and patrols area to prevent fires, vandal-
and theft. Cautions, evicts, or apprehends violators of laws and regulations.
cts or participates in first aid and rescue activities. May supervise workers
ged in construction and maintenance of park facilities and enforces stand-
of cleanliness and sanitation. May compile specified park-use statistics,
records, and prepare reports of area activities. May train and supervise
workers and concession attendants. May specialize in snow safety and ava-
e control and be designated Snow Ranger (government ser.).
04.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 82

167-046 PUBLIC HEALTH REGISTRAR (government ser.)
ecords and maintains birth and death certificates and communicable disease
rts, and prepares statistical data and medical reports for city or county pub-
ealth department. Registers birth, death, and communicable disease statis-
from information supplied by physicians, hospital personnel, funeral direc-
and representatives from other agencies. Analyzes cause of death state-
s and communicable disease reports for compliance with laws and local
lations, consistency, and completeness. Contacts information sources con-
ng vital statistics and disease reports to resolve discrepancies and obtain
onal information. Makes certified copies of documents and issues permits
move and bury bodies. Prepares reports, such as epidemiological case his-
and morbidity report and keeps file of communicable disease cases. Refers
culosis cases and contacts to appropriate health agencies for consultation,
ment referral, and assistance in disease control. Obtains medical, statistical,
sociological data for use by workers in various public health departments.
ts in maintaining statistical data file and medical information reference li-
07.04.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

167-050 SPECIAL AGENT, GROUP INSURANCE (insurance)
plains group insurance programs to promote sale of insurance to prospec-
clients and establishes bookkeeping system for insurance plan. Explains
s of insurance coverage, such as health, accident, life, or liability, and ac-
ting documentation required by company, as requested by SALES
NT, INSURANCE (insurance). Plans and oversees incorporation of insur-
program into a company's bookkeeping system. Establishes client's meth-
f payment. May install accounting systems and resolve system problems.
08.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

167-054 TOOLING COORDINATOR, PRODUCTION ENGINEERING (aircraft mfg.) alternate titles: tool procurement coordinator
oordinates activities of engineering, tool design, purchasing, and other de-
ments, to facilitate production or procurement of tooling. Evaluates tooling
s received from production engineering department to determine whether
ng should be manufactured in-house or procured from outside vendor. Ex-
es blueprints to determine tool requirements and special materials or items
ordered. Calculates and records tool requirement data on tooling order,
routes order to tool design or purchasing department. Prepares requisitions
tems to be purchased. Contacts tool room, purchasing, receiving, or other
nnel to follow up on procurement or production activities and to expedite
ement of tools between departments or vendors. Maintains manual or com-
ized records of tooling procurement, status, and disposition information.
mines tools and tool records to determine disposition of tools. Processes re-
s for tool repair. May transport tooling between departments or vendors
pedite handling.
05.02.03 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 88

167-062 COORDINATOR, SKILL-TRAINING PROGRAM (government ser.)
ns and arranges for cooperation with and participation in skill training
am by private industry, agencies, and concerned individuals. Organizes
oordinates recruiting, training, and placement of participants. Contacts var-
service agencies on behalf of trainees with social problems and refers
es to appropriate agencies to ensure trainees receive maximum available
ance. Prepares periodic reports to monitor and evaluate progress of pro-
07.01.02 STRENGTH: S GED: R5 M4 L4 SVP: 6 DLU: 86

167-066 LEGISLATIVE ASSISTANT (government ser.)
sists legislator in preparation of proposed legislation. Conducts research
subject of proposed legislation and develops preliminary draft of bill. Ana-
pending legislation and suggests to legislator action to be taken. Briefs
lator on policy issues. Attends committee meetings and prepares reports of
edings. Speaks with lobbyists, constituents, and members of press to gath-
d provide information on behalf of legislator. Analyzes voting records of
legislators and political activity in legislator home district to derive data
egislator consideration. Maintains liaison with government agencies affected by proposed or pending legislation. Assists in campaign activities and drafts speeches for legislator.
GOE: 11.05.03 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 86

169.167-070 DIRECTOR, EDUCATIONAL PROGRAMMING (radio-tv broad.)

Plans, develops, and administers programs to promote educational uses of television programs and auxiliary services of public broadcasting station. Reviews past and current educational and instructional programs produced by station and others to determine improvements needed in production and presentation of programs and auxiliary services, such as teaching guides and workshops. Analyzes data to determine prospective users, audiences, and potential funding sources. Confers with education officials and administrators to develop programs and services consistent with mandated curriculum requirements. Plans, initiates, and administers, through subordinates, preparation of written proposals and implementation of special educational projects, such as instructional programs for in-school and home-viewing courses. Confers with representatives of international educational and broadcasting agencies to ascertain availability of programs from foreign sources and to promote use of station's programs and services by foreign stations and schools. Directs printing, publishing, and dissemination of educational and promotional materials, such as newsletters, lesson plans, and study guides. May prepare budget for contracting programs and services to educational institutions.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 86

169.167-074 PREVENTIVE MAINTENANCE COORDINATOR (any industry)

Plans and coordinates schedule of preventive maintenance for equipment, machinery, tools, or buildings. Reviews manufacturers' service manuals, own establishment's usage schedules, and records of maintenance problems to determine optimum frequency of preventive maintenance. Studies production and operation schedules and confers with other staff and with maintenance supervisors to determine when planned maintenance will least interfere with operation of establishment. Estimates costs of personnel, parts, and supplies to be used during scheduled maintenance. Maintains records of planned and completed maintenance. May develop and coordinate plans for reconstruction or installation of new equipment, machinery, or buildings. May direct and coordinate activities of subordinate staff, such as MAINTENANCE DATA ANALYST (military ser.) 221.367-038. May direct and coordinate activities of maintenance workers.
GOE: 05.01.06 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

169.167-078 UTILIZATION COORDINATOR (radio-tv broad.)

Coordinates subscriber utilization of instructional television programming. Communicates with administrators, teaching staff, audiovisual specialists, and other personnel to assist subscribers in incorporating programs and related materials into planned curricula. Conducts surveys to determine problems in use of programs and materials and develops workshops and other services to address identified needs. Confers with prospective users of programs to elicit interest in subscribing to services. Participates with other station personnel in developing advertising and promotional material. Oversees activities of workers engaged in processing subscriber accounts.
GOE: 11.05.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 86

169.167-082 MANAGER, COMPUTER OPERATIONS (profess. & kin.)

Directs and coordinates activities of workers engaged in computer operations. Plans and develops policies and procedures for carrying out computer operations. Meets with subordinate supervisors to discuss progress of work, resolve problems, and ensure that standards for quality and quantity of work are met. Adjusts hours of work, priorities, and staff assignments to ensure efficient operation, based on work load. Reviews daily logs and reports to detect recurring slowdowns or errors, using computer terminal. Consults with software and hardware vendors and other establishment workers to solve problems impeding computer processing. Meets with users to determine quality of service and identify needs. Meets with data processing managers to determine impact of proposed changes in hardware or software on computer operations and service to users. Evaluates new software and hardware to determine usefulness and compatibility with existing software and hardware. Evaluates proposed data processing projects to assess adequacy of existing hardware, and recommends purchase of equipment. Develops budget and monitors expenditures. May direct and coordinate activities of tape library and supervise TAPE LIBRARIAN (clerical) 206.367-018.
GOE: 11.01.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 90

169.167-086 MANAGER, CREDIT AND COLLECTION (any industry)

Directs and coordinates activities of workers engaged in conducting credit investigations and collecting delinquent accounts of customers. Assigns workers, directly or through subordinate supervisors, responsibility for investigating and verifying financial status and reputation of prospective customers applying for credit, preparing documents to substantiate findings, and recommending rejection or approval of applications. Establishes credit limitations on customer account. Assigns responsibility for investigation of fraud cases and possible legal action and collection for worthless checks and delinquent bills. Reviews collection reports to ascertain status of collections-and-balances outstanding and to evaluate effectiveness of current collection policies and procedures. Audits delinquent accounts considered to be uncollectible to ensure maximum efforts have been taken before assigning bad-debt status to account. Coordinates with others, including personnel in company branches and credit card companies, to

exchange information and update controls. May submit delinquent accounts to attorney or outside agency for collection. May compile and analyze statistical data on fraudulent use of credit cards to develop procedures designed to deter or prevent use of cards. May specialize in credit and collection activities for credit cards and be designated Manager, Credit Card Operations (any industry).
GOE: 11.06.03 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 88

169.171-010 GAMEKEEPER (agriculture)
Breeds, raises, and protects game animals and birds on state game farm or private game preserves: Cares for breeding stocks in pens. Selects pairs for mating on basis of size, color, vigor, or desired characteristics. Gathers eggs for artificial incubation, and transfers young to rearing pens. Mixes feed according to formulas and fills feeding stations. Cleans and fills water containers. Sets and maintains traps for predatory and noxious animals and birds that may prey upon or carry disease to charges. Drives birds into portable coops to prepare them for transportation to release area. May liberate birds and animals in designated areas.
GOE: 03.01.02 STRENGTH: H GED: R4 M3 L3 SVP: 6 DLU: 77

169.207-010 CONCILIATOR (profess. & kin.) alternate titles: mediator
Mediates and conciliates disputes over negotiations of labor agreements or other labor relations disputes: Promotes use of fact-finding and advisory services to prevent labor disputes and to maintain sound labor relationships. Promotes use of mediation and conciliation services to resolve labor disputes. Advises and counsels parties to solve labor problems. Investigates and mediates labor disputes upon request of any bona fide party, using knowledge of labor law, industry practices, and social policies involved in labor relations. Urges expeditious settlement of negotiations to prevent employee wage loss, to minimize business interruptions, and to achieve labor-management peace. Interrogates parties and clarifies problems to focus discussion on crucial points of disagreement. Assists parties to compromise and settle deadlocked negotiations. Prepares reports of decisions reached or outcome of negotiations. May assist in arranging arbitration. May conduct representation elections according to written consent agreement of concerned parties. May oversee balloting procedures to assist in ratification of labor agreements.
GOE: 11.04.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

169.262-010 CASEWORKER (government ser.)
Performs research into laws of United States and procedures of federal agencies and prepares correspondence in office of Member of Congress to resolve problems or complaints of constituents: Confers with individuals who have requested assistance to determine nature and extent of problems. Analyzes U.S. Code to become familiar with laws relating to specific complaints of constituents. Researches procedures and systems of governmental agencies and contacts representatives of federal agencies to obtain information on policies. Contacts Congressional Research Service to collect information relating to agency policies and laws. Contacts colleges and universities to obtain information relating to constiteent problems. Determines action to facilitate resolution of constituent problems. Composes and types letters to Federal agencies and Congressional Committees concerning resolution of problems of constituents. Prepares memoranda to inform Member of Congress of problems which require legislative attention. Confers with personnel assisting Member of Congress to discuss introduction of legislation to solve constituent problems. Calculates social security benefits, veterans' benefits, tax assessments, and other data concerning constituent complaints, using desk calculator.
GOE: 07.01.06 STRENGTH: S GED: R5 M3 L4 SVP: 5 DLU: 86

169.267-010 CLAIMS ADJUDICATOR (government ser.)
Adjudicates claims for benefits offered under governmental social insurance program, such as those dealing with unemployed, retired, or disabled workers, veterans, dependents, or survivors: Reviews and evaluates data on documents and forms, such as claim applications, birth or death certificates, physician's statements, employer's records, vocational evaluation reports, and other similar records. Interviews or corresponds with claimants or agents to elicit information, correct errors or omissions on claim forms, and to investigate questionable data. Authorizes payment of valid claims, or notifies claimant of denied claim and appeal rights. Reevaluates evidence and procures additional information in connection with claims under appeal or in cases requiring investigation of claimant's continuing eligibility for benefits. Prepares written reports of findings. May specialize in one phase of claim program, such as assisting claimant to prepare forms, rating degree of disability, investigating appeals, or answering questions concerning filing requirements and benefits provided. May be designated according to type of benefit-claim adjudicated. May act as consultant to board rating disability.
GOE: 11.12.01 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

169.267-014 EXAMINER (government ser.)
Examines and evaluates data to determine persons' or organizations' eligibility for, conformity with, or liability under, government regulated activity or program: Examines data contained in application forms, agency reports, business records, public documents or other records to gather facts, verify correctness, or establish authenticity. Interviews persons, visits establishments, or confers with technical or professional specialists, to obtain information or clarify facts. Analyzes data obtained, utilizing knowledge of administrative policies, regulatory codes, legislative directives, precedent, or other guidelines. Determines eligibility for participation in activity, conformity to program requirements, or liability for damages or financial losses incurred, based on findings. Prepares correspondence to inform concerned parties of decision and rights to appeal. Prepares reports of examinations, evaluations, and decisions. May be classified according to job function, program involved, or agency concerned.
GOE: 07.01.05 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

169.267-018 FINANCIAL-AID COUNSELOR (education)
Interviews students applying for financial aid, such as loans, grants-in-aid, or scholarships, to determine eligibility for assistance in college or university: Confers with individuals and groups to disseminate information and answer questions relating to financial assistance available to students enrolled in college or university. Interviews students to obtain information needed to determine eligibility for aid. Compares data on students' applications, such as proposed budget, family income, or transcript of grades, with eligibility requirements of assistance program. Determines amount of aid, considering such factors as funds available, extent of demand, and needs of students. Authorizes release of funds to students and prepares required records and reports. May assist in selection of candidates for financial awards or aid granted by specific department. May specialize in specific aid program and be designated Loan Counselor (education); Scholarship Counselor (education).
GOE: 07.01.01 STRENGTH: S GED: R4 M4 L4 SVP: 5 DLU: 77

169.267-022 SECRETARY, BOARD-OF-EDUCATION (education)
Evaluates academic records and maintains personnel file on school employees, compiles budget estimates, and prepares reports: Reviews applications of teaching, administrative, and clerical personnel entering school system to determine that educational and experience qualifications meet city, county, and state requirements, and that such information as state certificates and military records are included. Sets up and maintains records for personnel of entire system according to established procedures. Prepares correspondence and answers inquiries regarding employees and other school matters. Compiles reports for various boards of education and other officials. Compiles statistical and other data from questionnaires and surveys requested by local, state, and national organizations. Estimates budget requirements and prepares master payroll for system's schools. Records minutes of board meetings. Studies new regulations and applies them in preparing reports and maintaining records.
GOE: 07.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

169.267-026 SUPERVISOR, SPECIAL SERVICES (education) alternate titles: veterans' coordinator
Provides special informational services to veterans, potential military enlistees, and physically handicapped students of college or university: Advises students regarding eligibility for veterans benefits, ways of fulfilling military obligation, or availability of public assistance. Interprets selective service and veterans' assistance laws to students. Refers handicapped students for counseling regarding vocational choice. Directs workers engaged in processing students' application and certification forms.
GOE: 07.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 6 DLU: 77

169.267-030 PASSPORT-APPLICATION EXAMINER (government ser.)
Approves applications for United States passports and related privileges and services: Reviews information on applications, such as applicant's birthplace and birthplaces of applicant's parents, to determine eligibility according to nationality laws and governmental policies. Examines supporting documents, such as affidavits, records, newspaper files, and Bibles, to evaluate relevance and authenticity of documents. Queries applicants to obtain additional or clarifying data. Forwards approved applications to designated official, and prepares summaries for cases not approved, indicating points of law. Answers questions of individuals concerning passport applications and related services.
GOE: 07.01.05 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 86

169.267-034 RESEARCH ANALYST (insurance)
Evaluates insurance industry developments to update company products and procedures: Reviews industry publications and monitors pending legislation and regulations to determine impact of new developments on company insurance products. Consults with designated company personnel to disseminate information necessitating changes in language or provisions of insurance contracts and assists in preparation of documents or directives needed to implement changes. Corresponds or consults with agents, brokers, and other interested persons to determine feasibility and marketability of new products to meet competition and increase sales. Develops procedures and materials for introduction and administration of new products, and submits package for review by company personnel and regulatory bodies. May recommend lobbying activities to management. May direct or coordinate activities of other workers. May specialize in analyzing developments in group insurance operations and be designated Group-Contract Analyst (insurance).
GOE: 11.05.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

169.267-038 ESTIMATOR (profess. & kin.) alternate titles: cost estimator; production estimator
Analyzes blueprints, specifications, proposals, and other documentation to prepare time, cost, and labor estimates for products, projects, or services, applying knowledge of specialized methodologies, techniques, principles, or processes: Reviews data to determine material and labor requirements and prepares itemized lists. Computes cost factors and prepares estimates used for management purposes, such as planning, organizing, and scheduling work, preparing bids, selecting vendors or subcontractors, and determining cost effectiveness. Conducts special studies to develop and establish standard hour and related cost data or effect cost reductions. Consults with clients, vendors, or other individ-

s to discuss and formulate estimates and resolve issues. May specialize ac- ding to particular service performed, type of product manufactured, or phase work involved, such as tool and fixture costs, production costs, construction ts, or material costs.

E: 05.03.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 88

.267-042 LETTER-OF-CREDIT DOCUMENT EXAMINER (financial)

Authorizes payment on letters of credit used in international banking. Exam- s documents, such as bills of lading, certificates of origin, and shipping nifests, for accuracy and completeness and to ensure that conditions of let- of credit are in accordance with establishment policy and international uni- n custom and practice. Verifies document computations, using calculator. ks with customers and recommends acceptable wording for letters of credit. plains regulatory and legal implications of terms and conditions, including trade restrictions. Instructs workers in preparing amendments to letters of dit. Contacts foreign banks, suppliers, or other sources to obtain required uments. Authorizes method of payment against letter of credit in accordance h client instructions.

E: 11.06.03 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 89

.267-046 UNDERWRITER (insurance)

Reviews insurance applications to evaluate, classify, and rate individuals and ups for insurance and accepts or rejects applications, following establishment derwriting standards: Examines such documents as application form, inspec- n report, insurance maps, and medical reports to determine degree of risk n such factors as applicant financial standing, age, occupation, accident ex- ience, and value and condition of property. Reviews company records to de- mine amount of insurance in force on single risk or group of closely related s, and evaluates possibility of losses due to catastrophe or excessive insur- e. Writes to field representatives, medical personnel, and other insurance or pection companies to obtain further information, quote rates, or explain com- y underwriting policies. Declines excessive risks. Authorizes reinsurance of icy when risk is high. Decreases value of policy when risk is substandard limit company obligation, and specifies applicable endorsements, or applies ng to ensure safe and profitable distribution of risks, using rate books, ta- s, code books, computer records, and other reference materials. Workers ically specialize by type of insurance coverage, such as life, health, property l liability, or multiline insurance, and by individual or group underwriting. thin different types of coverage, workers may further specialize in areas h as pension, workers' compensation, property, marine, automobile, home- ner, or fire.

E: 11.06.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 78

.284-010 ADMEASURER (government ser.)

Compiles data and prepares certificates of admeasurement to document ships, l determine type of license and safety equipment required, net tonnage, and licable tolls and wharfage fees. Examines blueprints of ship and takes phys- l measurements to determine capacity, using rule and tape measure. Com- es gross and net tonnage and deductible space of vessel required by laws. pares sketches of vessels, using drafting instruments. Writes certificates of neasurement, listing such details as design, length, depth, and breadth of ves- and method of propulsion.

E: 05.03.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

.367-010 EMPLOYMENT-AND-CLAIMS AIDE (government ser.)

Assists applicants completing application forms for job referrals or unem- yment compensation claims. Answers questions concerning registration for s or application for unemployment insurance benefits. Reviews data on job lication to claim forms to ensure completeness. Refers applicants to job ning or interview with EMPLOYMENT INTERVIEWER (profess. & kin.), accordance with administrative guidelines or office procedures. Schedules mployment insurance claimants for interview by CLAIMS ADJUDICATOR vernment ser.) when question of eligibility arises. Interviews claimants re- ning at specified intervals to certify claimants for continuing benefits. May st applicants in filling out forms using knowledge of information required native language of applicant.

E: 07.04.01 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

MANAGERS AND OFFICIALS, N.E.C.

This division includes managerial occupations which require a knowledge of management and operations of an organization, rather than a scientific, tech- al, or administrative specialty. Generally speaking, these are line manage- nt occupations in contrast to the staff and specialist occupations included in ision 16. Also includes such occupations as officers and executives of gov- ment, corporations, and nonprofit organizations; general managers; general ervisors; and department heads and their assistants in industrial establish- nts. Many general administrators and managers are former scientific, profes- nal, and administrative specialists. Care must be taken to classify occupa- s according to duties and requirements rather than an incumbent's education experience. Occupations in the administration of a scientific, technical, or fessional activity must be carefully scrutinized to determine whether they are concerned primarily with technical supervision or with general management or specialized administrative work.

180 AGRICULTURE, FORESTRY, AND FISHING INDUSTRY MANAGERS AND OFFICIALS

This group includes managerial occupations concerned with operation for owners or other entities of all types of farms, ranches, hatcheries, and game preserves, including crop production and care of livestock for commercial use, care of timber tracts and reforestation activities, and commercial fishing, and related managerial services incidental to the industries. Occupations concerned with logging and related services are included under Group 183.

180.117-010 MANAGER, CHRISTMAS-TREE FARM (forestry)

Plans, directs, and coordinates district operations of Christmas tree farm: Plans activities of district according to executive directives, budget, projected sales volume, and other guidelines. Negotiates contracts for lease of private lands for farming, and purchase of wild (uncultivated) trees for harvesting. Issues instructions to supervisors pertaining to variety and density of tree planting, cultural practices to apply, harvesting dates and locations, and shipping schedules. Contracts for trucks to haul trees from cutting areas to sorting yard. Hires workers and coordinates planting and cultivating of seedlings, and pruning, harvesting, grading, and shipping of trees. Directs office activities, such as compilation of production reports, preparation of payroll, and maintenance of office records.

GOE: 03.01.01 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

180.161-010 MANAGER, PRODUCTION, SEED CORN (agriculture) alternate titles: manager, regional

Plans and directs development and production of hybrid seed corn for commercial seed companies. Plans and executes experimental field studies to develop and improve varieties of hybrid corn with desired characteristics, such as greater yield, resistance to disease and insects, and adaptability to specific soils and climate. Selects and inbreeds plants until specific inbred line is produced, using various breeding techniques, such as crossbreeding, backcrossing, and outcrossing. Confers with farmers to arrange contracts for raising hybrid corn. Distributes seeds, specifies areas of farm to be planted, directs workers engaged in corn planting to make most effective use of land, and oversees fertilizing, cultivating, detasseling, and harvesting [FIELD SUPERVISOR, SEED PRODUCTION (agriculture)]. Directs, through subordinate supervisors, workers engaged in shelling and grading corn. Examines equipment used to clean and grade shelled corn for proper functioning and plans changes in drying, grading, storage, and shipment of seed corn for greater efficiency and accuracy. Interprets company policies and hires, discharges, transfers, and promotes workers. Records production, farm management practices, parent stock, or other data.

GOE: 03.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

180.161-014 SUPERINTENDENT, HORTICULTURE (museums)

Plans, coordinates, and directs activities concerned with breeding, growing, and displaying ornamental flowers, shrubs, and other plants in botanical garden, arboretum, park, or similar facility: Confers with administrative, technical, and maintenance staff members to plan activities for maintenance of growing stock and production of plants for display on grounds, installation in special exhibits, sale to public, or use in research projects. Discusses plans for renovation or additions to facility with administrative personnel and devises designs for floral exhibits to complement theme of new or renovated sections. Prepares scale drawings of outdoor or greenhouse exhibits for use of gardening staff members. Issues instructions to supervisory personnel in charge of plant growing, greenhouse, and display activities. Inspects greenhouse, hothouses, potting sheds, experimental growing areas, and other areas to determine need for repair and to observe activities of workers. Maintains inventory of propagation and growing equipment and supplies, and orders additional materials as needed. Arranges purchase, sale, or exchange of plants with representatives of similar institutions. Confers with research personnel to discuss development of new strains of plants and to devise methods to exhibit, publicize, or market new products. Represents establishment at civic or professional meetings. Participates in radio or television shows or prepares articles for newspapers to provide horticultural information to public.

GOE: 02.02.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

180.167-010 ARTIFICIAL-BREEDING DISTRIBUTOR (agriculture)

Manages distributorship concerned with collecting and packaging bull semen and inseminating cows: Hires, trains, and supervises ARTIFICIAL-BREEDING TECHNICIAN (agriculture). Prepares and issues advertising, speaks at farm organization meetings, and judges cattle shows to develop contacts with potential farmer-customers and to promote artificial breeding of cattle. Trains technicians in product knowledge, artificial insemination methods, and sales techniques. Organizes and coordinates sales and service functions and publishes material to motivate technicians and inform them of current breeding developments. Keeps customers' accounts and breeding and herd records for distributorship. Collects accounts due. Orders supplies, equipment, and promotional materials for technicians. May perform breeding services.

GOE: 03.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

180.167-014 FIELD SUPERVISOR, SEED PRODUCTION (agriculture)

Coordinates activities of FARMERS (agriculture) engaged in producing seed stocks for commercial seed companies: Inspects and analyzes soil and water

supplies of farm and studies wind currents, land contours, and windbreaks to plan production areas for effective utilization of land, prevention of cross-pollination, and avoid recurrence of previously planted crops. Distributes seed stock to FARMERS (agriculture) and specifies areas and number of acres to be planted. Gives instructions to workers engaged in cultivation procedures, such as fertilization, tilling, and detasseling. Determines harvesting dates and methods of harvesting. Plans and directs storage and shipment of harvested seed crop to ensure protection of seed life.
GOE: 03.02.01 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 77

180.167-018 GENERAL MANAGER, FARM (agriculture; wholesale tr.) alternate titles: ranch manager

Manages farm concerned with raising, harvesting, packing, and marketing farm products for corporations, cooperatives, and other owners: Analyzes market conditions to determine acreage allocations. Negotiates with bank officials to obtain credit from bank. Purchases farm machinery and equipment and supplies, such as tractors, seed, fertilizer, and chemicals. Hires and discharges personnel. Prepares financial and other management reports. Supervises office personnel engaged in preparing payrolls and keeping records. Visits orchards and fields to inspect and estimate maturity dates of crops and potential crop damage due to harsh weather conditions. Confers with purchasers, and determines when and under what conditions to sell crops, marine life, or forest products. May be designated according to type of crop.
GOE: 03.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 79

180.167-022 GROUP LEADER (agriculture) alternate titles: crew boss; crew leader; row boss

Coordinates activities of group of FARMWORKERS, GENERAL (agriculture) I engaged in planting, cultivating, and harvesting diversified crops. Recruits members for group. Locates jobs for group and accompanies group on job. May be required to hold state registration certificate. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.01.01 STRENGTH: L GED: R3 M2 L2 SVP: 7 DLU: 77

180.167-026 MANAGER, DAIRY FARM (agriculture)

Manages dairy farm: Plans, develops, and implements policies, procedures, and practices for operation of dairy farm to ensure compliance with company's or owner's standards for farm production, propagation of herd, and regulations of regulatory agencies. Directs and coordinates, through subordinate supervisory personnel, farm activities, such as breeding and rearing livestock, feeding and milking of cows, storage of milk, and sterilizing and maintaining facilities and equipment. Reviews breeding and milk production records to determine bulls and cows that are unproductive and should be sold. Inspects facilities and equipment to ensure compliance with sanitation standards, and to determine maintenance and repair requirements. Authorizes, requisitions, or purchases supplies and equipment, such as feed, disinfective and sanitation chemicals, and replacements for defective equipment. Secures services of VETERINARIAN (medical ser.) for treatment of herd or when cows are calving. Prepares farm activity reports for evaluation by management or owner. May direct and coordinate activities concerned with planting, growing, harvesting, and storage of feed forage crops. May directly supervise dairy workers on small farms.
GOE: 03.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

180.167-030 MANAGER, FISH HATCHERY (fishing & hunt.) alternate titles: fish culturist; superintendent, fish hatchery

Manages public or private fish hatchery, applying knowledge of management and fish culturing techniques: Determines, administers, and executes policies relating to administration, standards of hatchery operations, and maintenance of facilities. Confers with BIOLOGISTS (profess. & kin.) and other fishery personnel to obtain data concerning fish habits; food and environmental requirements; and techniques for collecting, fertilizing, incubating spawn, and treatment of spawn and fry. Oversees trapping and spawning of fish; incubating of eggs; rearing of fry; and movement of fish to lakes, ponds, and streams or commercial tanks. Prepares reports required by state and federal laws. Prepares budget reports, and receives, accounts for, and dispenses funds. May approve employment and discharge of employees, sign payrolls, and perform similar personnel duties. May manage hatchery concerned with culturing shellfish and other marine life and be designated Manager, Marine Life Hatchery (fishing & hunt.); Manager, Shellfish Hatchery (fishing & hunt.).
GOE: 03.01.02 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

180.167-034 MANAGER, GAME BREEDING FARM (agriculture)

Directs and coordinates activities concerned with operation of private or state game breeding farm: Consults with professional personnel and reviews technical publications and other literature to obtain data on breeding, rearing, habits, diets, and diseases and treatment, of various species of game birds and animals. Evaluates data in order to plan game breeding and rearing activities. Plans, formulates, and implements policies, methods, and procedures required to attain game farm objectives. Directs and coordinates farm activities, such as incubation and hatching of game bird eggs and rearing of birds; selection, pairing, and rearing of game animals; treatment of diseased or ill game birds and animals; and repair and maintenance of farm facilities. Inspects facilities and equipment for needed repairs or maintenance. Examines game for sign of illness or disease and notifies designated personnel of actions to be taken. May contract with state agencies or private game preserves to provide establishments with birds or animals. May contract with food establishments to furnish game birds and game animal meat. Must be licensed as breeder by state department of fish and game. May be designated according to type of game bred as Manager, Game-Animal Farm (agriculture); Manager, Game-Bird Farm (agriculture).
GOE: 03.01.02 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

180.167-038 MANAGER, GAME PRESERVE (agriculture)

Directs and coordinates activities concerned with operation of state or private game preserve: Determines nature of habitat required for propagation and subsistence of species of game animals or birds on preserve, utilizing knowledge of habits and natural propagation of animals and birds. Directs and coordinates activities of workers engaged in constructing and maintaining habitats required, conducting game surveys, protection of game from predatory animals, and maintaining buildings and facilities of preserve. Determines from surveys number of birds or animals that may be hunted or killed in order to eliminate imbalances resulting from natural propagation of game and limitations imposed by area habitat. Posts signs restricting areas where game may be hunted and enforces fish and game laws. Prepares reports required by county, state, or federal government regulatory agencies. May breed, rear, and liberate game on preserve. May contract with breeding personnel for stocking purposes and liberate game on preserve. May arrange contracts for movie studios to film on preserve or for sale of game to zoos. May present lectures on objectives, policies, and practices of state fish and game department to inform and aquaint civic or other interested groups on wildlife and preserve programs.
GOE: 03.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

180.167-042 MANAGER, NURSERY (agriculture; retail trade; wholesale tr.)

Manages nursery to grow horticultural plants, such as trees, shrubs, flowers, ornamental plants, or vegetables for sale to trade or retail customers: Determines type and quantity of horticultural plants to be grown, considering such factors as whether plants will be grown under controlled conditions in hothouse or greenhouse or under natural weather conditions in field, and market demand or conditions, utilizing knowledge of plant germination, growing habits of plants, soil conditions, plant nutrients, and disease control requirements. Selects and purchases seed, plant nutrients, and disease control chemicals according to type of horticultural plants and conditions under which plants will be grown. Tours work areas to observe quality and quantity of work being done, to inspect crops and to evaluate horticultural conditions, such as plant disease and soil conditions. Directs and coordinates, through subordinate supervisory personnel, activities of workers engaged in planting of seed, raising, feeding, and controlling growth and disease of plants, and transplanting, potting, or cutting plants for marketing. Coordinates clerical, record keeping, accounting, and marketing activities. May purchase nursery stock for resale and sell gardening accessories, such as sprays, garden implements, and plant nutrients and be known as Manager, Retail Nursery (agriculture; retail trade). May grow horticultural plants under controlled conditions hydroponically and be known as Manager, Hydroponics Nursery (agriculture).
GOE: 03.01.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 81

180.167-046 MANAGER, POULTRY HATCHERY (agriculture)

Manages poultry hatchery: Plans, develops, and implements policies and practices for operation of hatchery to ensure attainment of goals and profitable operation: Arranges with farmers to supply eggs or obtains eggs from company owned flocks. Directs and coordinates, through subordinate supervisory personnel, hatchery activities, such as hatching of eggs, sorting, vaccinating and shipping of chicks, and maintenance of facilities and equipment. Prepares hatching schedules for variety of chicks considering such factors as customer orders, market forecasts, and hatchery facilities and equipment. Arranges for sale of chicks to farmers or commercial growers. Interprets hatchery records and genetic data on chicks and advises customers regarding breeding, brooding, feeding, and sanitation practices to follow for various species of poultry. Arranges for purchases of equipment and supplies, such as brooders, incubators, feeds, and medicines. Prepares reports on hatchery activities, such as chick production and sales and reports required by regulatory bodies. May be designated by species of poultry hatched as Manager, Chicken Hatchery (agriculture); Manager, Duck Hatchery (agriculture); Manager, Turkey Hatchery (agriculture).
GOE: 03.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

180.167-050 MIGRANT LEADER (agriculture) alternate titles: crew leader; farm-crew leader

Contracts seasonal farm employment of MIGRANT WORKERS (agriculture): Consults employment agencies to locate work and confers with FARMERS (agriculture) to obtain suitable contracts for crew. Recruits and organizes crew and furnishes transportation to work site. Schedules en-route rest stops that afford shelters, benches or beds, cooking facilities, fuel and water, and adequate toilet and sanitary provisions. Confers with employer and community officials at site of employment to ensure availability of living quarters for families and single individuals, educational and recreational facilities, medical care, and day care for children. Supplies farm implements and machinery to crew and directs them in methods of cultivation, harvesting, and packaging of crop. Prepares payroll and production records. May provide initial financing of trips and advance funds to workers during idle periods. May be required to hold state registration certificate. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.01.01 STRENGTH: L GED: R3 M2 L2 SVP: 7 DLU: 77

180.167-054 SUPERINTENDENT (agriculture; can. & preserv.)

Coordinates packinghouse activities with harvesting of crops: Inspects farms to ascertain quantity of crops to be processed by packinghouse. Advises grow-

ers of best time for harvesting crops, considering such factors as maturity of and demand for products. Informs packinghouse supervisor and sales agents of rops to be processed to plan packinghouse activities and sales campaigns. Oversees packinghouse activities and assigns duties to subordinate supervisors. Reports needed packinghouse repairs and replacements to superiors. May hire and discharge packinghouse employees.
GOE: 03.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

180.167-058 SUPERINTENDENT, PRODUCTION (agriculture) alternate titles: grove superintendent; manager, production

Directs and coordinates activities of workers engaged in laying out of new itrus groves and maintenance of mature groves, owned by packinghouses or other absentee companies. Analyzes soil to determine type and quantity of plant food required for maximum production. Directs amount and kind of insecticides and fungicides to be used and method of application. Keeps company officials nformed of condition of groves, quantity of crops estimated for harvesting, and other factors affecting production of citrus fruits. May contract to maintain groves for independent owners. May purchase supplies for grove care.
GOE: 03.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

180.167-062 MANAGER, AERIAL PLANTING AND CULTIVATION (agriculture)

Manages operations of aerial seed sowing and crop dusting establishment: Negotiates contracts with farm personnel to sow seeds of specified varieties or o spray or dust fields or crops with specified agricultural chemicals. Confers with AIRPLANE PILOT (agriculture) 196.263-010 to determine materials and onditions required to meet terms of contract and schedules flights according o factors, such as client requests, weather conditions, aircraft availability, and egal and safety considerations. Monitors AIRPLANE-PILOT HELPER (agri- ulture) 409.667-010 mixing chemicals, loading chemicals and seeds into hopper of aircraft, and indicating flight passes to pilot from ground to ensure effi- ient and safe operations. Purchases seeds and chemicals from suppliers. Over- ees repair and maintenance of aircraft and contracts for repair and maintenance of hangars, runway, and related company facilities. Maintains records for billing and payroll purposes. Initiates personnel actions, such as hiring, firing, and dis- iplining workers.
GOE: 11.11.03 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 86

80.167-066 MANAGER, ORCHARD (agriculture)

Manages orchards: Directs and coordinates, through subordinate supervisory ersonnel, orchard activities, such as orchard development, irrigation, chemical pplication, and harvesting to ensure that company production goals are met. valuates oral and written reports and observes operations to monitor progress f work and to detect and resolve problems. Determines and authorizes alter- ative procedures to accommodate variables, such as weather conditions, water upply, stage of crop or tree development, and new legislation. Coordinates or- hard department activities with those of engineering, equipment maintenance, acking house, and other related departments. Analyzes financial statements and akes budget proposals. May initiate personnel actions, interpret company pol- y, and enforce safety regulations.
GOE: 03.01.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

81 MINING INDUSTRY MANAGERS AND OFFICIALS

This group includes managerial occupations concerned with exploration and evelopment of mineral properties; extracting minerals, such as coal and ores, quid petroleum, and gases; quarrying; well operation; and mining.

81.117-010 MANAGER, BULK PLANT (petrol. refin.; retail trade) alternate titles: field operating superintendent; terminal superintendent

Manages plant in which gasoline, lubricants, and petroleum fuels are stored nd distributed in bulk lots, formulating policies in regard to storage, dis- ibution, and other operating problems: Determines type and quantities of prod- cts according to consumer demand. Contacts refineries and petroleum canning lants to schedule shipment of products. Establishes operating procedures for coming shipments, indicating storage tanks and warehouse facilities to be sed. Formulates policies for distribution and sale of products to wholesale and tail outlets and consumers.
GOE: 05.02.07 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

81.117-014 MINE SUPERINTENDENT (mine & quarry) alternate titles: superintendent, colliery; superintendent, quarry

Plans and coordinates activities of personnel engaged in extracting minerals, ich as coal, ore, or rock, from underground or surface mines, pits, or quarries: eviews data, such as maps, survey reports, and geological records, and confers ith engineering, maintenance, and supervisory personnel to plan and direct ine development. Calculates mining or quarrying operational costs, estimates otential income, and instructs PIT SUPERVISOR (mine & quarry) 939.137- 4 to abandon or open mine sections, pits, or other working areas. Studies aps and blueprints to determine location for haulageways, access roads, ven- ation shafts, rail tracks, and conveyor systems. Studies land contours and rock rmations, and specifies locations to install pillars, timbers, and roof bolts, and e of equipment for cutting, drilling, blasting and loading minerals. Reads ining laws and safety regulations, and issues directives to workers to ensure herence to applicable rules and regulations. Reviews and consolidates records, such as ore grade, air quality, safety reports, and production records. Tours and inspects mine to detect and resolve production, equipment maintenance, safety, atmospheric, and personnel problems. Negotiates with workers, union personnel, and other parties to settle grievances.
GOE: 05.02.05 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 80

181.167-010 MANAGER, FIELD PARTY, GEOPHYSICAL PROSPECTING (petrol. & gas) alternate titles: field-party manager

Directs activities in petroleum company or geophysical exploration service concerned with providing transportation, supplies, housing, and other requirements for field party prospecting for petroleum reserves: Purchases and maintains flow of supplies to party. Arranges for housing and other living facilities. Discharges financial obligations. Arranges for and directs repair of automotive and drilling equipment.
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

181.167-014 SUPERINTENDENT, DRILLING AND PRODUCTION (petrol. & gas) alternate titles: district superintendent; division superintendent

Directs activities concerned with exploratory drilling, and drilling oil wells and producing oil and gas from wells within one or more oil fields: Plans erection of drilling rigs, and installation and maintenance of equipment, such as pumping units and compressor stations. Directs technical processes, such as treatment of oil and gas to reduce moisture and sediment content, mud analysis, well logging, and formation testing. Determines procedures to resolve drilling problems, such as nonvertical bore holes and broken drilling tools. Formulates methods to control production of wells in accordance with proration regulations. Schedules dismantling and storing derricks and drilling equipment, cleaning wells, and servicing well equipment. Analyzes production reports, initiates personnel actions, and revises drilling and production procedures to control operating costs and production efficiency of oil field. Directs petroleum exploration parties engaged in drilling for samples (cores) of subsurface stratigraphy and in seismic prospecting. May be designated according to specialty as Superintendent, Oil-Field Drilling (petrol. & gas); Superintendent, Production (petrol. & gas).
GOE: 05.02.01 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 77

181.167-018 SUPERVISOR, MINE (mine & quarry) alternate titles: supervisor, general

Supervises and coordinates activities of personnel, such as PIT SUPERVISOR (mine & quarry); SECTION SUPERVISOR (mine & quarry) in one or more underground or surface mines, pits, or quarries. Directs opening of new surface cuts or pits or underground rooms and passageways, or construction and installation of equipment as designated by MINE SUPERINTENDENT (mine & quarry). Coordinates activities with those of SAFETY ENGINEER, MINES (mine & quarry) and reports safety violations. Inspects mines and instructs supervisors to take necessary measures to improve production and working conditions.
GOE: 05.02.05 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

182 CONSTRUCTION INDUSTRY MANAGERS AND OFFICIALS

This group includes managerial and contractual occupations concerned with construction of dwellings, office buildings, stores, farm buildings, bridges, roads, and similar structures; plumbing, painting, electrical, carpentry, site preparation, and landscaping work.

182.167-010 CONTRACTOR (construction)

Contracts to perform specified construction work in accordance with architect's plans, blueprints, codes, and other specifications: Estimates costs of materials, labor, and use of equipment required to fulfill provisions of contract and prepares bids. Confers with clients to negotiate terms of contract. Subcontracts specialized craft work, such as electrical, structural steel, concrete, and plumbing. Purchases material for construction. Supervises workers directly or through subordinate supervisors. May be designated according to specialty license or scope of principal activities as Contractor, General Engineering (construction); Contractor, General Building (construction).
GOE: 11.12.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

182.167-014 LANDSCAPE CONTRACTOR (construction)

Contracts to landscape grounds of houses, industrial plants, other buildings, or areas around highways: Confers with prospective client, studies landscape designs or drawings, and bills of materials to ascertain scope of landscaping work required, such as installation of lighting or sprinkler systems, erection of fences, concrete work, and types of trees, shrubs, or ornamental plants specified. Inspects grounds or area to determine equipment requirements for grading, tilling, or replacing top soil, and labor requirements to install sprinkler or lighting system, build fences, or perform concreting and planting work. Calculates labor, equipment, material, and overhead costs to determine min[illegible] estimate or bid which will provide for margin of profit. Prepares and submits estimate for client or bid to industrial concern or governmental agency. Prepares contract for client to sign or signs contract if successful bidder. Plans landscaping functions and sequences of work at various sites to obtain optimum utilization of work force and equipment. Directs and coordinates, through subordinate supervisory personnel, activities of workers engaged in performing landscaping func-

tions in contractual agreement. Purchases and ensures that materials are on site as needed. Inspects work at sites for compliance with terms and specifications of contract. May personally supervise workers. May participate in performing landscaping functions. May be required to possess state license as landscape contractor. May subcontract electrical installation or concrete work if not equipped to provide those services.
GOE: 03.01.03 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

182.167-018 RAILROAD-CONSTRUCTION DIRECTOR (r.r. trans.)
Plans and coordinates activities of workers engaged in constructing, installing, inspecting, and maintaining railroad track and rights-of-way within assigned district of railroad: Plans work assignments and schedules. Requisitions supplies and materials to complete construction projects. Dispatches workers and equipment to scenes of accidents and impassable roadbeds or tunnels to repair damage and restore service. Investigates accidents, defective tracks, and obstructions to rights-of-way and issues restorative work orders. Prepares reports stating causes of accidents or concerning condition of tracks and issues recommendations to prevent future accidents, damage, or track deterioration. Recommends construction of new tracks.
GOE: 05.02.02 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

182.167-022 SUPERINTENDENT, CONCRETE-MIXING PLANT (construction)
Manages ready-mix concrete plant: Determines work procedure and assigns duties to personnel concerned with mixing and dispatching of concrete and maintenance of plant and equipment. Inspects personnel performance for quality and quantity. Prepares reports on cost of plant operation and maintains personnel records. Hires, trains, and discharges workers. Coordinates activities of sales personnel.
GOE: 05.02.03 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

182.167-026 SUPERINTENDENT, CONSTRUCTION (construction) alternate titles: superintendent, job
Directs activities of workers concerned with construction of buildings, dams, highways, pipelines, or other construction projects: Studies specifications to plan procedures for construction on basis of starting and completion times and staffing requirements for each phase of construction, based on knowledge of available tools and equipment and various building methods. Assembles members of organization (supervisory, clerical, engineering, and other workers) at start of project. Orders procurement of tools and materials to be delivered at specified times to conform to work schedules. Confers with and directs supervisory personnel and subcontractors engaged in planning and executing work procedures, interpreting specifications, and coordinating various phases of construction to prevent delays. Confers with supervisory personnel and labor representatives to resolve complaints and grievances within work force. Confers with supervisory and engineering personnel and inspectors and suppliers of tools and materials to resolve construction problems and improve construction methods. Inspects work in progress to ensure that work conforms to specifications and that construction schedules are adhered to. Prepares, or receives from subordinates, reports on progress, materials used and costs, and adjusts work schedules as indicated by reports. May direct workers concerned with major maintenance or reconditioning projects for existing installations. Workers are usually designated according to type of project, work, or construction activity directed.
GOE: 05.02.02 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 80

182.167-030 SUPERINTENDENT, MAINTENANCE OF WAY (r.r. trans.)
Plans and coordinates construction and maintenance of railroad right-of-way. Approves repair and construction projects and assigns work to specified departments. Reviews progress and production charts to ascertain that work is proceeding on schedule. Reviews and authorizes construction and maintenance projects or plans for budget, staff, and equipment requests. Coordinates activities of workers engaged in maintaining right-of-way. Visits sites damaged by wreck, derailment, or natural disaster, and prepares report identifying such factors as amount of damage, repairs to be done, and reasons for derailment or wreck. May consult with public-service agencies to resolve issues of unsafe crossings, bridges, trestles, and installation of additional warning devices. May direct construction and maintenance of buildings and other structures, such as bridges, trestles, and tunnels.
GOE: 05.02.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 81

182.167-034 SUPERVISOR, BRIDGES AND BUILDINGS (r.r. trans.)
Directs and coordinates activities of workers engaged in construction and repair of railroad structures, such as bridges, culverts, tunnels, and buildings: Plans work schedules for construction and maintenance projects. Interprets and explains plans for construction of new projects. Ensures that workers are supplied with tools, materials, and equipment for completion of construction or maintenance projects. Ensures that railroad construction specifications are followed. Dispatches workers and equipment to scenes of accidents to repair damaged bridges, tunnels, or right-of-way. Investigates reports of damage or accidents to determine and correct cause, if attributable to faulty construction or maintenance. Inspects right-of-way and structures to detect need for repairs. Prepares reports of hours, equipment, and materials used to complete each construction or maintenance project. May cooperate with engineering department to develop plans for new projects.
GOE: 05.02.02 STRENGTH: L GED: R5 M5 L4 SVP: 7 DLU: 77

182.267-010 CONSTRUCTION INSPECTOR (construction)
Inspects and oversees construction of bridges, buildings, dams, highways, and other types of construction work to ensure that procedures and materials comply with plans and specifications: Measures distances to verify accuracy of dimensions of structural installations and layouts. Verifies levels, alignment, and elevation of installations, using surveyor's level and transit. Observes work in progress to ensure that procedures followed and materials used conform to specifications. Prepares samples of unapproved materials for laboratory testing. Examines workmanship of finished installations for conformity to standard and approves installation. Interprets blueprints and specifications for **CONTRACTOR** (construction) and discusses deviations from specified construction procedures to ensure compliance with regulations governing construction. Records quantities of materials received or used during specified periods. Maintains daily log of construction and inspection activities and compares progress reports. Computes monthly estimates of work completed and approves payment for contractors. Prepares sketches of construction installations that deviate from blueprints and reports such changes for incorporation on master blueprints. May be designated according to structure or material inspected as Building-Construction Inspector (construction); Ditch Inspector (construction); Highway Inspector (construction); Masonry Inspector (construction); Reinforced-Concrete Inspector (construction); Rod Inspector (construction). May be designated: Pipeline Inspector (construction); Structural-Steel Inspector (construction); Tunnel-Heading Inspector (construction).
GOE: 05.03.06 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

183 MANUFACTURING INDUSTRY MANAGERS AND OFFICIALS

This group includes managerial occupations concerned with plants, factories, or mills which use power-driven machines and materials-handling equipment to bring about mechanical or chemical transformation of organic or inorganic substances into products. Includes establishments engaged in assembling component parts of manufactured products where the product is not a structure.

183.117-010 MANAGER, BRANCH (any industry) alternate titles: agent; manager, area; manager, division; manager, plant
Directs production, distribution, and marketing operations for branch plant, or assigned territory of industrial organization: Coordinates production, distribution, warehousing, and sales in accordance with policies, principles, and procedures established by **MANAGER, INDUSTRIAL ORGANIZATION** (any industry) 189.117-022. Confers with customers and representatives of associated industries to evaluate and promote improved and expanded services in area. Develops plans for efficient use of materials, machines, and employees. Reviews production costs and product quality, and modifies production and inventory control programs to maintain and enhance profitable operation of division. Reviews operations of competing organizations, and plans and directs sales program to develop new markets, using sales aids, advertising, promotional programs, and field services. Directs personnel program. Directs preparation of accounting records. Recommends budgets to management. May be designated according to title of area of jurisdiction as Manager, District (any industry); Manager, Local (any industry); Manager Regional (any industry).
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 78

183.117-014 PRODUCTION SUPERINTENDENT (any industry) alternate titles: manager, factory; manager, general; manager, plant; manager, production; plant supervisor; superintendent, factory; superintendent, general; superintendent, mill; superintendent, plant
Directs and coordinates, through subordinate supervisory personnel, activities concerned with production of company product(s), utilizing knowledge of product technology, production methods and procedures, and capabilities of machines and equipment: Confers with management personnel to establish production and quality control standards, develop budget and cost controls, and to obtain data regarding types, quantities, specifications, and delivery dates of products ordered. Plans and directs production activities and establishes production priorities for products in keeping with effective operations and cost factors. Coordinates production activities with procurement, maintenance, and quality control activities to obtain optimum production and utilization of human resources, machines, and equipment. Reviews and analyzes production, quality control, maintenance, and operational reports to determine causes of nonconformity with product specifications, and operating or production problems. Develops and implements operating methods and procedures designed to eliminate operating problems and improve product quality. Revises production schedules and priorities as result of equipment failure or operating problems. Consults with engineering personnel relative to modification of machines and equipment in order to improve production and quality of products. Conducts hearings to resolve or effect settlement of grievances and refers unresolved grievances for management-union negotiations. Supervises subordinates directly in plants having no **GENERAL SUPERVISOR** (any industry) 183.167-018. **PRODUCTION SUPERINTENDENTS** (any industry) 183.117-014 are usually designated according to product produced or by type of plant, industry, or activity. May compile, store, and retrieve production data, using computer.
GOE: 05.02.03 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 89

183.161-014 WINE MAKER (beverage) alternate titles: enologist
Directs and coordinates all activities of winery concerned with production of wine: Contracts with growers to provide fruit for processing or cooperates with

RTICULTURIST (profess. & kin.) of company vineyard in grape produc- . Examines grape samples to ascertain presence and extent of such factors ugar and acid content, and ripeness. Orders grapes picked when analysis cates they are at degree of ripeness desired. Coordinates processes and di- s workers concerned with testing and crushing grapes, fermenting juice, for- ng, clarifying, aging, and finishing of wine, including cooling, filtering, and ling. Blends wines according to formulas or knowledge and experience in e making. May develop new processes to improve product. When process- champagne, may be designated Champagne Maker (beverage). When proc- ng wine into vinegar, is designated Vinegar Maker (beverage).
05.02.03 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 77

167-010 BREWING DIRECTOR (beverage) alternate titles: brewing superintendent

evelops new or modifies existing brewing formulas and processing tech- es and coordinates, through subordinate supervisors, brewing, fermenting, ring, and malting departments of a brewery. Devises brewing formulas and esses or works in conjunction with research personnel to develop or modify ulas and processes. Directs and coordinates activities of departments to rol processing, according to formula specifications. Confers with technical administrative personnel to resolve formula and process problems. Reviews analyzes production orders to determine brewing schedules and human re- ce requirements. Tests and inspects beer, grain, malt, wort, and yeast, using harimeter, hydrometer, and other test equipment and correlates results with ty control analyses. Advises and recommends to management methods and edures for selecting, installing, and maintaining equipment. Reviews and re- s personnel actions. Prepares and submits production reports. May confer worker's representatives to resolve grievances.
05.02.03 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

167-014 GENERAL SUPERINTENDENT, MILLING (grain-feed mills) alternate titles: milling superintendent

rects operations of number of grain and feed mills under one establish- . Estimates operating time of each mill to produce various kinds of grain ed products, basing estimates on experience, sales records, and anticipated of stock. Prepares comparative data for each mill and type of product, and s orders to each MILLER SUPERVISOR (grain-feed mills) concerning his cular mill. Plans new mills, selects milling machinery, and ensures that ma- ry is installed according to specifications. May supervise workers engaged anging existing mills to improve production.
05.02.03 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

67-018 GENERAL SUPERVISOR (any industry) alternate titles: department supervisor; division supervisor; process supervisor; production supervisor

rects and coordinates, through subordinate supervisory personnel, activities oduction department(s) in processing materials or manufacturing products dustrial establishment, applying knowledge of production methods, proc- , machines and equipment, plant layout, and production capacities of each tment: Reviews production orders or schedules to ascertain product data, as types, quantities, and specifications of products and scheduled delivery in order to plan department operations. Plans production operations, estab- g priorities and sequences for manufacturing products, utilizing knowledge oduction processes and methods, machine and equipment capabilities, and n resource requirements. Prepares operational schedules and coordinates facturing activities to ensure production and quality of products meets fications. Reviews production and operating reports and resolves oper- al, manufacturing, and maintenance problems to ensure minimum costs and nt operational delays. Inspects machines and equipment to ensure specific tional performance and optimum utilization. Develops or revises standard tional and working practices and observes workers to ensure compliance standards. Initiates personnel actions, such as promotions, transfers, dis- es, or disciplinary measures. Resolves worker grievances or submits unset- grievances to PRODUCTION SUPERINTENDENT (any industry) 17-014 for action. Workers are usually designated according to department sses, operations, activity, or industry. May compile, store, and retrieve ction data, using computer.
05.02.03 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 88

67-022 GENERAL SUPERVISOR (beverage)

ervises and coordinates activities of supervisory personnel engaged in ng operations. Recommends improvements in processing, sanitation, and procedures. Reviews and approves requests for minor repairs and mainte- Assists BREWING DIRECTOR (beverage) in departmental operations.
05.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

67-026 MANAGER, FOOD PROCESSING PLANT (can. & preserv.)

ects and coordinates activities of food processing plant. Contacts buyers wers to arrange for purchasing or harvesting and delivery of agricultural cts, seafoods, meat, or other raw materials to plant for processing. Directs, h subordinate supervisory personnel, workers engaged in processing, can- freezing, storing, and shipping food products. Directs and coordinates ac- s concerned with dismantling, moving, installing, or repairing of machines uipment. Approves plant payroll and payments for purchased materials ducts. Estimates quantities of foods for processing required and orders materials, supplies, and equipment needed. Hires, transfers, and discharges employees. May provide suppliers with transportation to expedite delivery of purchased products or supplies to plant. May arrange for freezing of packaged products by other food processing plants. May negotiate with suppliers or growers prices to be paid for purchases.
GOE: 05.02.03 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

183.167-030 SERVICE SUPERVISOR, LEASED MACHINERY AND EQUIPMENT (any industry)

Directs and coordinates activities of service department of establishment concerned with providing lessees of machinery and equipment with maintenance and repair services as stipulated in leasing contract. Organizes field service offices and facilities in locations that will provide greatest number of customers with services. Stocks offices with spare parts and supplies to enable offices to provide required services. May arrange for transportation of machinery to and from customer's establishment when repairs cannot be performed on-site. May contact potential customers concerning leasing of machinery and equipment. May negotiate leasing and service contracts for machinery and equipment.
GOE: 11.11.05 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

183.167-034 SUPERINTENDENT, CAR CONSTRUCTION (railroad equip.)

Coordinates, through subordinates, activities of workers engaged in constructing and repairing railroad freight cars: Reviews plans for construction of new cars and reports of cars requiring repairs and confers with subordinate department supervisors to estimate time, supplies, human resources, and equipment required to complete work. Schedules work to departments, such as metal, paint, or structural shops. Reviews progress reports and reschedules work for departments completing work in order to meet schedule deadlines. Recommends salvaging or scrapping of cars. Interprets and enforces company safety rules, building codes, and regulations.
GOE: 05.02.03 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 77

183.167-038 SUPERINTENDENT, LOGGING (logging) alternate titles: cutting supervisor; yarding supervisor

Directs and coordinates, through subordinate supervisory personnel, activities of workers engaged in logging operations: Reviews logging orders and inspects designated timber tract and terrain to determine methods for logging operations, size of crew, and equipment requirements. Confers with mill, company, and government forestry officials regarding methods for logging tract in order to determine safest and most efficient method. Engages personnel and directs setting up of equipment at logging site. Plans, schedules, and coordinates logging operations in accordance with production requirements and in compliance with safety laws and government regulations. Observes logging operations to detect unsafe working conditions and noncompliance of workers with safety regulations. Changes logging procedures or methods to eliminate unsafe conditions and warns or disciplines workers disregarding safety regulations. Prepares production and personnel time records for management. May negotiate contract with mill, logging company, governmental agency, or individuals to perform logging operations and be designated Logging Contractor (logging).
GOE: 05.02.05 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

184 TRANSPORTATION, COMMUNICATION, AND UTILITIES INDUSTRY MANAGERS AND OFFICIALS

This group includes managerial occupations concerned with passenger and freight transportation by railway, highway, water, or air; furnishing services relating to transportation; petroleum pipeline transportation; warehousing; telephone and telegraph communication services; radio broadcasting and television; and the supplying of electricity, gas, steam, water, or sanitary services.

184.117-010 DIRECTOR, PUBLIC SERVICE (radio-tv broad.) alternate titles: manager, public service

Plans, schedules, and coordinates broadcasting of public service radio or television programs in various fields, such as education, religion, and civic and government affairs: Directs activities of public relations staff that maintains contacts between station or network and governmental and educational organizations. Evaluates proposed programs for suitability within station or network policy. Makes recommendations to formulate policy. Attends and addresses conventions and conferences of various groups to interest them in educational uses of radio and television. Interviews community officials and leaders to identify community problems and concerns. Examines station or network programming to ascertain available time and schedules public service programs. Contacts member network stations to promote public service programs on national scale. May research and write information on proposed program topics. May contact potential guests to solicit participation in program. May plan and schedule meetings with community organizations. May write or type notes on meeting agendas, minutes of meetings, letters, memos, and reports. May be designated according to specialization as Director, Educational Radio (radio-tv broad.).
GOE: 11.09.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 89

184.117-014 DIRECTOR, TRANSPORTATION (motor trans.)

Formulates policies, programs, and procedures for transportation system, including schedules, rates, routes, assignment of drivers and vehicles and other terminal operations. Submits recommendations for development of, and compli-

ance with transportation policies, procedures, and programs. Plans, directs, and implements vehicle scheduling, allocation, dispatching, licensing, and communication functions in accordance with established policies and objectives to effect economical utilization of vehicle facilities. Directs compilation and issuance of timetables. Conducts continuous analyses of vehicle and driver assignments and analyzes scheduling for possible consolidation. Reviews and revises driver schedules to ensure increased efficiency and to lower costs. Conducts field surveys to evaluate operations and recommends changes. Directs compilation and preparation of statistical surveys to determine traffic trends. Reviews and analyzes reports, such as revenue and performance records, and seat occupancy patterns to secure information for recommended changes. Analyzes proposed schedules and rates, initiates preparation and distribution of proposed trip schedule changes, and submits analyses of data and rescheduling recommendations to administration. Directs operation and maintenance of communication systems, reviews procedures, provides guidance to resolve technical problems, analyzes costs and recommends cost control measures. Reviews cost statements to locate excessive expenses, and develops plans, policies, and budgets. Selects and recommends personnel for staff positions and trains and assigns personnel for supervisory positions.
GOE: 11.05.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.117-018 DISTRICT SUPERVISOR (motor trans.) alternate titles: city service supervisor

Selects passenger bus depot sites along routes and sets up agreement between company and agent. Inspects depots to ensure maintenance of company standards for food and passenger comfort facilities. Collects and audits ticket sales and computes agent's commission. Advises agent of bus schedule changes. Investigates accidents and arranges settlements.
GOE: 11.12.02 STRENGTH: L GED: R5 M5 L5 SVP: 6 DLU: 77

184.117-022 IMPORT-EXPORT AGENT (any industry) alternate titles: foreign agent

Coordinates activities of international traffic division of import-export agency and negotiates settlements between foreign and domestic shippers: Plans and directs flow of air and surface traffic moving to overseas destinations. Supervises workers engaged in receiving and shipping freight, documentation, waybilling, assessing charges, and collecting fees for shipments. Negotiates with domestic customers, as intermediary for foreign customers, to resolve problems and arrive at mutual agreements. Negotiates with foreign shipping interests to contract for reciprocal freight-handling agreements. May examine invoices and shipping manifests for conformity to tariff and customs regulations. May contact customs officials to effect release of incoming freight and resolve customs delays. May prepare reports of transactions to facilitate billing of shippers and foreign carriers.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

184.117-026 MANAGER, AIRPORT (air trans.) alternate titles: director, airport; superintendent, airport

Plans, directs, and coordinates, through subordinate personnel, activities concerned with construction and maintenance of airport facilities and operation of airport in accordance with governmental agency or commission policies and regulations: Consults with commission members, governmental officials, or representatives of airlines to discuss and plan such matters as design and development of airport facilities, formulation of operating rules, regulations, and procedures, and aircraft landing, taxiing, and take-off patterns for various types of aircraft. Negotiates with representatives of airlines, utility companies, or individuals for acquisition of property for development of airport, lease of airport buildings and facilities, or use of rights-of-way over private property. Formulates procedures for use in event of aircraft accidents, fires, or other emergencies. Inspects airport facilities, such as runways, buildings, beacons and lighting, and automotive or construction equipment, or reviews inspection reports, to determine repairs, replacement, or improvements required. Coordinates activities of personnel involved in repair and maintenance of airport facilities, buildings, and equipment to minimize interruption of airport operations and improve efficiency. Directs personnel in investigating violations of aerial or ground traffic regulations, reviews investigation reports, and initiates actions to be taken against violators. Directs studies on noise abatement resulting from complaints of excessive noise from low flying aircraft or other operations. Reviews reports of expenditures for previous fiscal year, proposed improvements to facilities, and estimated increase in volume of traffic, in order to prepare budget estimates for upcoming fiscal year. Represents airport before civic or other organizational groups, courts, boards, and commissions. When management functions are divided at large or international airports, workers may be designated according to activities directed as Director, Airport Operations (air trans.); Manager, Airport-Property-And-Development (air trans.); Superintendent, Airport-Buildings-Maintenance (air trans.); Superintendent, Airport-Facilities-Repair-And-Maintenance (air trans.).
GOE: 11.05.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

184.117-030 MANAGER, AREA DEVELOPMENT (utilities) alternate titles: area-development consultant

Negotiates with representatives of industrial, commercial, agricultural, or other interests utilizing electric power or fuel gas to encourage location of facilities in area served by utility: Directs and coordinates activities of workers engaged in preparation of surveys and studies of prospective development area to compile information of interest to companies desirous of relocation. Analyzes compiled data and formulates methods and procedures for developing industrial areas to determine industries that would enhance developmental plan. Plans promotional sales program and advertising to promote maximum utilization of land and consumption of electric power. Contacts companies to persuade them to locate in service area.
GOE: 11.09.03 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

184.117-034 MANAGER, AUTOMOTIVE SERVICES (any industry)

Directs and coordinates activities concerned with acquisition of automotive equipment and operation and maintenance of automotive fleet repair and storage facilities for public utility, transportation, commercial, or industrial company: Coordinates activities of staff personnel conducting research and testing program on automotive equipment considered for acquisition for such factors as operational performance, operational and maintenance costs, safety of operation, and compliance with environmental laws and regulations. Reviews and submits staff proposals for modifications to vendor or manufacturer. Directs procurement of all types of company-owned-and-operated automotive equipment, and materials, supplies, and parts required to maintain automotive equipment, garages, and storage facilities. Coordinates automotive repair and maintenance services to obtain maximum utilization of automotive equipment and prevent operational delays in other departments.
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.117-038 MANAGER, FLIGHT OPERATIONS (air trans.)

Directs and coordinates through subordinate management personnel, flight operation and control activities of air transport company terminal station: Reviews flight schedules, flight crew bid sheet for routes, and crew schedules to ensure assignments for schedules and routes are in accordance with personnel qualifications for type of aircraft, federal safety and operational regulations, union contract provisions, and company policy. Confers with flight crew personnel to resolve any differences regarding schedule and route assignments. Coordinates activities of sections in flight operations department, such as dispatching, flight control, flight training and meterology, to ensure maximum operating efficiency. Confers with administrative personnel, government regulatory agencies, and representatives of other airlines to propose revision and adoption of rules and procedures governing flight operation activities. Directs preparation of supplemental training materials or revision of operational manuals resulting from changes in rules and procedures. Conducts investigations in cooperation with federal agencies to determine causes of aircraft accidents and to establish accident prevention and emergency methods and procedures. May check out flight crew personnel on aircraft.
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.117-042 MANAGER, HARBOR DEPARTMENT (water trans.)

Manages operations of municipal harbor department or port authority: Enforces orders, rules, and regulations, concerning use and control of navigable waters, tidelands, and submerged lands within harbor. Authorizes acquisition and maintenance of water craft and erection of facilities for department. Directs assignment of berths and wharves to steamship companies. Negotiates leases for office space and warehouses. Coordinates activities of purchasing, traffic, wharfage, and accounting divisions. Analyzes reports of harbor operations to plan and develop future operations, taking into consideration such factors as economic conditions, tariff changes, and commodity movements. Prepares and submits reports and recommendations to board or authority. Prepares budget and authorizes expenditures within departments.
GOE: 11.05.03 STRENGTH: S GED: R6 M4 L4 SVP: 9 DLU: 77

184.117-046 MANAGER, IRRIGATION DISTRICT (waterworks) alternate titles: manager, water department

Plans and directs construction, maintenance, and operation of irrigation system within area delegated by board of directors: Establishes company policies relating to matters such as regulation of distribution and use of water, setting up of operation and maintenance standards, and standards concerned with construction of drainage systems. Recommends changes in policy, basing recommendations on study of capacity of present facilities, agricultural requirements, crop trends, and probable future water needs. Prepares directives to carry out policies approved by board. Confers with farmers, officials of city water systems, and representatives of county, state, and federal government to discuss matters such as water delivery schedules, construction problems at road and highway intersections, and diversion of river water for district use. Visits division offices, inspects field operations, and reviews periodic reports from subordinates to determine progress of construction and maintenance projects, distribution of water within divisions, collection of charges to users, and status of other phases of operation. Reviews budget estimates and compiles and approves estimates for district. Approves employment and discharge of employees, signs payrolls, and performs similar personnel duties.
GOE: 11.05.03 STRENGTH: L GED: R5 M4 L4 SVP: 9 DLU: 77

184.117-050 MANAGER, OPERATIONS (air trans.; motor trans.; r.r. trans.; water trans.) alternates titles: operations manager

Directs and coordinates activities of operations department of air, motor, railroad, or water transportation organization: Confers and cooperates with management personnel in formulating administrative and operational policies and procedures. Directs and coordinates, through subordinate managerial personnel, activities of operations department to obtain optimum use of equipment, facilities, and personnel. Reviews and analyzes expenditure, financial, and operations reports to determine requirements for increasing profits, such as need for increase in fares or tariffs, expansion of existing schedules, or extension of routes or new routes. Prepares recommendations on findings for management evaluation. Recommends capital expenditures for acquisition of new equipment which would increase efficiency and services of operations department. Approves requisitions for equipment, materials, and supplies within limits of operations department budget. Enforces compliance of operations personnel with administrative policies, procedures, safety rules, and governmental regulations. Directs investigations into causes of customer or shipper complaints relating to operations department. May negotiate contracts with equipment and materials suppliers. May act as representative of transportation organization before government commissions or regulatory bodies during hearings for increased fares or tariffs and on extensions of or new routes.

GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 81

184.117-054 MANAGER, REGIONAL (motor trans.)

Directs and coordinates regional activities of motor transportation company: Examines and analyzes rates, tariffs, operating costs, and revenues to determine such needs or requirements as increase in rates and tariffs, reduction of operations and maintenance costs, and expansion of or changes in schedules or routes. Prepares, for management evaluation, recommendations designed to increase efficiency and revenues and lower costs. Directs, through subordinate management personnel, compliance of workers with established company policies, procedures, and standards, such as safekeeping of funds and tickets, personnel employment and grievance practices, and enforcement of union contracts and government regulations. Reviews operational records and reports and refers to manuals, company instructions, and government regulations to detect deviations from operational practices and prepares directives to eliminate such infractions. Investigates safeguards and inspects regional premises to ensure that adequate protection exists for company assets, property, and equipment. Participates in union contract negotiations and settling of grievances. Coordinates advertising and sales promotion programs for region. Reviews replies to passenger complaints and settlement of claims for conformance with company public relations policies and procedures. Inspects terminals for conformance with standards for cleanliness, appearance, and need of repair or maintenance, and directs corrective measures required to meet standards.

GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.117-058 MANAGER, SCHEDULE PLANNING (air trans.)

Negotiates with governmental regulatory body to change company's route ap-
plication (fixed schedule for flights) over authorized routes as representative of
ertificated air carrier. Analyzes documentation on company operations and rec-
ommended changes in route application, prepared by subordinates, to determine
f company position warrants requesting route application hearing, considering
uch factors as current and projected traffic load, route application of competi-
ive carriers over same route, and profitability of route operations. Submits cur-
ent and proposed schedules to Schedule Committee for consideration and ap-
roval to request hearing before regulatory body. Prepares company's position
nd arguments for presentation at route application hearing and negotiates with
ody for additional route applications or deletion of route applications on un-
rofitable routes in order to improve efficient utilization of flight personnel and
quipment and to reduce losses or increase revenues. Directs and coordinates
ctivities of workers compiling documentation on route application, analyzing
ata, and preparing recommendations for schedule changes.

OE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

84.117-062 MANAGER, STATION (radio-tv broad.)

Directs and coordinates activities of radio or television station, or of cable
elevision franchise: Supervises directly, or through subordinates, personnel en-
aged in departments, such as sales, program, engineering, and personnel. Ob-
erves activities to ensure compliance with government regulations. Discusses
lans with marketing personnel to promote sales of programs and time periods
advertisers and their agencies. Confers with owners or company senior man-
gement to discuss station policy and administrative procedures. May prepare
perational budget and monitor expenses for station or franchise. May negotiate
ith motion picture companies for purchase of independent film programs. May
egotiate cable franchise contract with local issuing authority. May develop
rategy to promote sales of new cable television service, or upgraded service,
customers within franchise area. May contact prospective buyers of station
me to promote sale of station services. May manage station engaged in trans-
itting broadcasts to foreign countries and be known as Director, International
roadcasting (radio-tv broad.). May perform different duties and responsibil-
es, according to station size and network affiliation, and be designated Gen-
al Manager, Broadcasting (radio-tv broad.).

OE: 11.05.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 89

4.117-066 MANAGER, TRAFFIC (air trans.; motor trans.; water trans.) alternate titles: manager, rates and schedules

Conducts studies of company freight and passenger classifications, rates, and
riffs and formulates changes required to provide for increased revenues and
ofitability of operations: Analyzes financial reports on operations and evalu-
es existing classifications, rates, and tariffs to determine changes required and
ed for expansion or curtailment of schedules and routes. Documents data to
pport proposals for increased revenues, expansion of schedules or routes, and
es application for new rates, schedules, or routes with regulatory agencies.
stifies before regulatory agencies to present company's position and need for
reased revenues in order to operate profitably. Negotiates with personnel of
er transportation companies on division of interline revenues and signs con-
ct on terms of agreement. Consults with officials of other companies on traffic movement problems, such as freight handling, transfer, and in-transit storage. Directs and coordinates activities of workers in classification of shipments and in applying and enforcing rates and tariffs.

GOE: 11.11.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.117-070 OPERATIONS MANAGER (tel. & tel.)

Directs activities of main and branch offices of telegraph communications systems division: Interprets and implements company policies, and develops operating procedures to facilitate branch office operations. Conducts management studies, collecting and interpreting economic and statistical data to prepare budget estimates, determine work load, personnel, and equipment requirements, and to forecast future community needs. Approves branch office personnel assignments and requisition and installation of new equipment. Locates and appraises properties for proposed office locations and negotiates lease agreements with property owners. Prepares telegraph office layouts and drawings for administrative review. Inspects branch office installations and facilities to ensure that company service and operating standards are followed. Audits branch office accounts and verifies cash balances to determine accuracy and completeness of financial accounts and records. Directs security measures for protection of funds and personnel against injury or loss from sources, such as fire or theft.

GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.117-074 REVENUE-SETTLEMENTS ADMINISTRATOR (tel. & tel.)

Directs activities concerned with intercompany negotiations on revenue settlements: Negotiates revenue settlements with intercompany representatives on proposed facility arrangements, such as cables and switching equipment, and changes in operations and procedures. Supervises workers engaged in analyzing settlement agreements. Analyzes results of studies to determine effects on revenue, expense, and investment. Prepares settlement contracts, following guidelines developed during negotiations. Prepares or supervises preparation of revenue budget estimates for accounting purposes. May represent company at Public Utilities Commission hearings.

GOE: 11.12.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.117-078 SUPERINTENDENT, COMMISSARY (water trans.)

Manages commissary department of company operating seagoing vessels: Processes requisitions for supplies and equipment from vessels and approves or denies request. Negotiates contracts with supply houses, manufacturers, or wholesalers for equipment, supplies, and furnishings. Formulates and issues instructions for management commissary department aboard vessels. Represents company in formulating policies when negotiating contracts with union. Resolves labor-management problems of commissary department personnel. Inventories food supplies aboard vessels and examines menus to ensure that vessels are serving balanced diets. Inspects vessels to ensure that housekeeping functions conform to sanitary regulations and that repairs and improvements are made. Analyzes food costs and prepares reports for management.

GOE: 11.05.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.117-082 SUPERINTENDENT, COMMUNICATIONS (tel. & tel.) alternate titles: plant chief

Directs construction, operation, and maintenance of telephone or telegraph communication systems: Studies and accepts or rejects recommendations for improvement or additions to communication facilities. Investigates availability and approves cost estimates of new equipment requested. Approves or rejects equipment rental and electric-power contracts. Supervises personnel and performs other administrative duties to ensure efficient operation. May direct installation and operation of radio communications systems.

GOE: 05.02.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.117-086 MANAGER, CAR INSPECTION AND REPAIR (r.r. trans.)

Plans, directs, and coordinates, through subordinate supervisors, activities concerned with inspection, repair, and maintenance of railroad equipment: Confers with department heads to establish administrative and operational policies and procedures for following federal, Railroad Association, and union regulations and agreements. Interprets policies and procedures for subordinate supervisors, and monitors activities to ensure that policies and procedures are followed. Analyzes records of daily operations, such as freight car inspections, repairs completed or scheduled, or worker absenteeism, to maintain knowledge of department activities. Instructs subordinates to institute specific measures, such as studies and maintaining bar graphs, to monitor productivity. Discusses freight car repairs with shippers or consignees and inspection and repair violations with federal and public representatives to resolve concerns, such as time of repair, repair cost, and methods of preventing future violations. Monitors inventory of parts and materials and prepares requisition forms for items in short supply. Conducts investigations of personnel matters, such as continued tardiness, excessive absenteeism, or safety violations, negotiates with union representative matters, such as contract violations, job abolishment, and reallocation of human resources, and prepares required reports, according to prescribed procedures.

GOE: 11.11.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 86

184.117-090 REGIONAL SUPERINTENDENT, RAILROAD CAR INSPECTION AND REPAIR (r.r. trans.)

Plans and coordinates inspection, maintenance, and repair of railroad equipment within assigned railroad region: Analyzes productivity and budget reports to determine allocation of work force, and equipment and productivity of inspection and repair facilities within assigned region. Confers with shop and yard supervisory personnel and shippers to stay apprised of daily work sched-

ules and to ensure priority scheduling of repairs for railcars needed back in service. Oversees administrative matters, such as training policies, budget allocations, and equipment replacement. Monitors administration of safety program, according to company rules, union agreements, and federal regulations.
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L4 SVP: 9 DLU: 86

184.161-010 CABLE SUPERVISOR (tel. & tel.)
Directs and coordinates, through subordinate supervisory personnel, activities of workers engaged in installation, maintenance, and repair of underground, buried, aerial, or submarine telephone carrier cables in plant district: Reviews proposed construction plans and schematic drawings to ensure that proposals are compatible with existing equipment and that plans adhere to specifications. Inspects construction sites and installations to ensure service deadlines are being met. Directs and coordinates testing and inspecting of plant equipment for operational performance. Prepares budget, determines work force requirements, and establishes production schedules to meet service loads.
GOE: 05.05.05 STRENGTH: L GED: R4 M2 L4 SVP: 8 DLU: 77

184.161-014 SUPERINTENDENT, WATER-AND-SEWER SYSTEMS (waterworks)
Directs and coordinates activities of workers engaged in installation, maintenance, repair, expansion, and relocation of water distribution and sewage facilities: Analyzes trends, such as population and industrial growth of area being served to determine adequacy of current facilities and to project community demands for future facilities. Develops plans to meet and serve expanding community needs, such as increasing capacity of water storage and filtration facilities, or arranging new sources of water supply. Plans methods and sequence of operations to facilitate additions, deletions and modifications to the system. Directs activities of subordinate personnel who oversee installation, maintenance, and repair of water distribution and sewage facilities. Inspects field projects to confirm conformance to specifications. Confers with administrative and technical personnel and personnel of other utilities to coordinate departmental activities. Evaluates new developments in materials, tools, and equipment to recommend or deny purchase. Prepares budget estimates based on anticipated needs of department. For classification of workers concerned only with water supply see SUPERVISOR, WATERWORKS (waterworks); for those concerned only with sewage disposal see SUPERVISOR, SEWER SYSTEM (waterworks).
GOE: 05.02.01 STRENGTH: S GED: R6 M6 L6 SVP: 9 DLU: 77

184.162-010 MANAGER, PRODUCTION (radio-tv broad.)
Coordinates work of various departments to produce radio or television programs and commercial announcements: Trains, assigns duties, and supervises employees engaged in production and taping such programs as game shows, talk broadcasts, and special programs. Ensures that slanderous, libelous, and profane statements are avoided or deleted and that program is in conformance with station or network policy and regulations. Schedules usage of studio and editing facilities needed by PRODUCERS (radio-tv broad.) 159.117-010, and engineering and maintenance staff to maximize use of facilities, according to scheduled events. Operates television broadcasting equipment, such as switcher, video and color monitors, tape decks, lights and microphones to train workers or to substitute for absent employees. Operates portable, shoulder-mounted camera to record or broadcast live programs from location of event. May direct subordinates in auditioning talent and proposed programs. May coordinate audio work, scenes, music, timing, camera work, and script writing, to develop desired production, and review production to ensure objectives are obtained.
GOE: 11.05.02 STRENGTH: H GED: R5 M4 L4 SVP: 7 DLU: 89

184.163-010 TRAFFIC INSPECTOR (motor trans., r.r. trans.) alternate titles: dispatcher; transportation inspector
Coordinates scheduled service within assigned territory of streetcar, bus, or railway transportation system: Periodically observes vehicles along route to ensure that service is provided according to schedule. Investigates schedule delays, accidents, equipment failures, and complaints, and files written report. Reports disruptions to service, using radiotelephone. Determines need for changes in service, such as additional coaches, route changes, and revised schedules to increase operating efficiency and improve service. Drives automobile along route to detect conditions hazardous to equipment and passengers, and negotiates with local government personnel to eliminate hazards. Assists in dispatching equipment when necessary. Recommends promotions and disciplinary actions involving transportation personnel. Inspects mechanical malfunctions of vehicles along route and directs repair.
GOE: 11.10.05 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

184.167-010 BOAT DISPATCHER (water trans.)
Coordinates movement of freight by barge or lighter to provide most efficient service to shippers consistent with available equipment and facilities: Determines number and kind of barges and lighters needed to transport cargo. Coordinates movement of vessels to ensure most efficient service. Assigns barges and lighters to individual haulage jobs and issues orders to TUGBOAT CAPTAINS (water trans.). Compiles or directs activities of workers engaged in compilation of periodic reports on freight tonnage transported and cost of operations.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

184.167-014 DIRECTOR, NEWS (radio-tv broad.)
Directs and coordinates activities of news department of radio or television network or station: Confers with executives and production staff members regarding budget, station policy, news coverage of special events, and production problems. Originates or approves feature ideas and sends ideas to personnel of assignment department for implementation. Monitors news development and reviews edited copy and news film. Approves program content or issues directions for changes or modification. Coordinates news staff activities with radio or television programming, traffic, and film editing departments. Hires, discharges, and evaluates performance of news staff. May operate video equipment to review and approve news film or tape, using knowledge of usage of equipment. May write or type news copy, letters, and memos. May perform production duties or directly supervise those performing them in smaller station. May be designated according to media as Director, Radio News (radio-tv broad.); Director, Television News (radio-tv broad.).
GOE: 11.08.01 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 89

184.167-018 DIRECTOR, OPERATIONS (radio-tv broad.)
Directs and coordinates operations departments of radio, television or cable television station: Carries out general policies established by company officers. Prepares and administers budget for program department. Makes decisions pertaining to general policies beyond scope of authority of department heads under jurisdiction. Approves hiring and discharging of department personnel. May compose memos on budgetary and policy matters, using computer.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

184.167-022 DIRECTOR, OPERATIONS, BROADCAST (radio-tv broad.)
Coordinates activities of personnel engaged in preparation of station and network program schedules: Reviews program schedules in advance and issues daily corrections. Arranges for split network programs furnishing stations not carrying sponsored programs with noncommercial programs. Notifies traffic department to install or cancel programs originating at points remote from broadcasting station. Advises affiliated stations regarding their schedules. Examines expenditures for programs to determine compliance with budgetary restrictions. Prepares schedules for talent and assigns talent to broadcast periods. Arranges for office space and equipment.
GOE: 11.05.02 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 88

184.167-034 DIRECTOR, SPORTS (radio-tv broad.)
Directs and coordinates activities of personnel engaged in broadcasting sports news or sports events over radio or television network or for individual station: Plans broadcast coverage of sports events, such as baseball, basketball, and football games or boxing matches. Directs or arranges for setup of remote broadcast facilities. Hires and assigns staff personnel to operate and direct broadcasting activities and to announce event. Directs preparation and broadcast of sports news and commentaries. Plans for and arranges employment of well-known individuals (personalities) to serve as guest commentators for special events or programs. May participate in broadcasts and interview sport personalities during broadcast, depending on size of station.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

184.167-038 DISPATCHER, CHIEF I (petrol. & gas; petrol. refin.; pipe lines) alternate titles: superintendent, scheduling
Plans transmission schedules and operating procedures to direct movement of crude oil, petroleum products, natural gas, or coal slurry through pipelines from transmission terminal to distribution points or destinations: Contacts customers or shippers to ascertain volume or quantities of products to be transported, reviews consumption records and forecasts on consumer demands, and estimates peak delivery periods in order to plan and determine quantities, pressures, or volume of products required in transmission lines. Schedules movement of petroleum products to minimize contamination of various grades or types of products. Prepares operating schedules for compressor or pump stations, tank farms and refineries, as to type and quantities of product movement, time of movement, pressures or volumes specified in pipeline, and destination for specified products. Issues instructions relative to gauging, switching, sampling, and testing of products. Reviews operating reports on receipts, movements, withdrawals, deliveries, and on-hand storage stocks to ensure safe and efficient operation of pipelines. Prepares emergency operating procedures to meet schedules, provide for specified volumes and pressures in pipeline, and recover losses resulting from breakdown of equipment. May communicate with field personnel, using teletype or telephone. May be designated according to type of product scheduled as Dispatcher, Chief, Coal Slurry (pipe lines); Dispatcher, Chief, Natural Gas (petrol. & gas; pipe lines); Dispatcher, Chief, Oil (pipe lines); Dispatcher, Chief, Petroleum Products (petrol. refin.; pipe lines).
GOE: 05.02.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-042 GENERAL AGENT, OPERATIONS (air trans.; motor trans.; r.r. trans.) alternate titles: service center manager
Directs and coordinates activities of personnel involved in transportation of freight by air, motor, and railway transportation systems: Coordinates transportation and handling of express shipments within geographic subdivision by directing activities of airport field offices, branch agencies, and railway terminals. Recruits, hires, and administers training of employees. Establishes procedures and standards to implement policies of company. Inspects operations to evaluate efficiency of methods and submits reports to regional manager.
GOE: 11.05.02 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

184.167-046 INCINERATOR-PLANT-GENERAL SUPERVISOR (sanitary ser.)
Supervises and coordinates activities of workers engaged in operating one or more incinerator plants: Schedules work and assigns crews to shifts or plants.

Plans routine for receiving and incinerating rubbish and refuse. Instructs employees in work methods and interprets and enforces operating orders and procedures. Issues orders and directives regarding operation, repair, and maintenance of facilities and equipment. Inspects plant operations and directs compilation of operating records. Analyzes cause of operating failure and recommends repair methods and procedures. Interviews and recommends prospective employees. Directs preparation of timesheets and personnel records, and initiates requests for supplies and contract repair work.
GOE: 05.06.04 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

184.167-050 MAINTENANCE SUPERVISOR (utilities)

Directs and coordinates activities of workers engaged in mechanical and electrical repair and maintenance of electric-power generating equipment, and transmission, distribution, and control equipment of electric power utility. Confers with management and other department heads to plan preventive maintenance programs and to schedule inspections and major overhauls in coordination with other operating activities. Reviews technical papers, catalogs, and other reference materials, and confers with equipment sales representatives to select and recommend new supplies and maintenance methods to improve plant operations. Confers with contractors to resolve problems in installation of new equipment and to assist in start of new plants or additions. Reviews inspection and repair reports and observes progress of work on major overhauls to evaluate efficiency and work quality. May prepare annual departmental budget. May specialize in supervision of maintenance work and be designated Maintenance Supervisor, Electrical (utilities); Maintenance Supervisor, Mechanical (utilities).
GOE: 05.02.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 81

184.167-054 MANAGER, BUS TRANSPORTATION (motor trans.)

Directs and coordinates activities of motor bus company to provide passengers with fast, efficient, and safe transportation, either performing following duties personally or through subordinate supervisory personnel: Applies for or recommends fare revisions, extension of routes, or changes in schedules in order to improve passenger services and increase revenues. Coordinates terminal and dispatching activities, communication operations, and assignment of driving personnel to obtain optimum use of facilities, equipment, and human resources. Inspects physical facilities of terminal and buses for such factors as cleanliness, safety, and appearance, and takes required actions in order to meet prescribed standards. Processes passenger complaints and initiates corrective actions designed to improve customer relations and services. Initiates investigations into causes of accidents, interviews operators concerned to determine responsibility, and takes actions on findings or submits reports to management. Directs preparation and issuance of new schedules to terminal and operating personnel. Dispatches replacement buses for vehicles involved in accidents and buses and operators for special charter or tours. Directs and participates in training of personnel and issues manuals, bulletins, and technical guides to improve services and operational activities. Reviews operator bids for routes to determine assignments for driving personnel. Checks trip and dispatch logs for conformance with schedules. Verifies cash fares with operator reports and reviews errors with personnel concerned. Directs preparation of and keeping of dispatch and vehicle operations records and reports.
GOE: 11.11.03 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

184.167-058 MANAGER, CARGO-AND-RAMP-SERVICES (air trans.)

Directs and coordinates, through subordinate supervisory personnel, air transport terminal cargo and ramp activities to provide fast and efficient services for clients and passengers: Reviews data on incoming flights, such as scheduled or estimated times of arrival or departure, destinations and downline station stops, and air cargo and passenger manifests in order to plan work activities. Directs preparation of loading plans for each departing flight, and confers with supervisory personnel to ensure workers and equipment are available for air cargo and baggage loading, unloading, and handling activities and for ramp service activities. Analyzes reports and records of operations and inspects facilities to determine effectiveness of existing methods and procedures and physical condition of facilities and equipment. Prepares and submits recommendations designed to improve efficiency of cargo and ramp services. Investigates causes of accidents and recommends safety measures for preventing further occurrences. Reviews performance evaluations of personnel for conformance to standards, recommends personnel actions, and directs and coordinates training activities to increase workers' efficiency and proficiency. Interprets and enforces, through supervisory personnel, company policies, procedures, and safety regulations.
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-062 MANAGER, COMMUNICATIONS STATION (tel. & tel.)

Directs and coordinates, through shift supervisory personnel, operation and maintenance activities of submarine-cable head, microwave-satellite, or coastal radio-telephone station of communications company: Reviews station logs and confers with supervisory personnel to ascertain apparatus or equipment malfunctions and remedial procedures taken. Plans station activities, prepares work schedules, and assigns technical personnel to operating or maintenance duties. Authorizes requisitions for replacement parts, materials, and supplies. Prepares reports and records on station activities. May personally supervise workers in stations where shift supervisory personnel are not utilized. May be designated according to type of communications station managed.
GOE: 05.02.04 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-066 MANAGER, FLIGHT CONTROL (air trans.)

Directs and coordinates activities of commercial airline flight control center concerned with dispatching aircraft on scheduled flights and controlling flight movements on routes in accordance with federal and company regulations and policies: Assigns aircraft dispatching and flight controlling duties for specific scheduled flights on designated routes to center personnel, basing assignments on knowledge and abilities of personnel and human resource requirements for operation of flight control center. Reviews dispatching and flight control actions taken by control center personnel for conformance with federal and company regulations and procedures. Explains to center personnel prescribed methods and procedures for planning flight operations and sequences to be followed in dispatching (releasing) flight and controlling aircraft on route. Interviews prescreened applicants for center staff to ascertain abilities and qualifications and recommends qualified applicants to personnel department. Instructs new employees on federal and company regulations and procedures for dispatch of aircraft and control of flight movements. Evaluates center personnel on job proficiency and recommends such personnel actions as salary increases, promotions, disciplinary actions, and dismissals. Must possess valid Aircraft Dispatchers Certificate of Competency issued by Federal Aviation Agency.
GOE: 05.02.04 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-070 MANAGER, FLIGHT-RESERVATIONS (air trans.)

Directs and coordinates, through subordinate supervisory personnel, flight reservation activities for certificated commercial or transport company: Reviews flight reservation reports, statistical data on passenger miles flown, and conducts comparison studies on other airline reservations to develop methods and procedures designed to improve operating efficiency and increase reservations for company flights. Interprets and implements, through supervisory personnel, company policies and procedures regarding customer relations and contact with public. Analyzes economic statistics as applied to air transportation and other factors, such as weather conditions, special flight rates, and package deals, to estimate future volume of flight reservations. Prepares estimates of work force required to process work load and equipment requirements in order to formulate budget estimate. Reviews performance evaluations on reservations personnel and initiates personnel actions as required. Schedules rotation of worker assignments to improve capabilities of personnel and develop worker overall knowledge of department activities. Directs investigation of customer complaints regarding reservation services and prepares correspondence designed to improve customer relations. Endeavors to resolve personnel grievances and submits unresolved grievances to higher authority.
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-078 MANAGER, SOLID-WASTE-DISPOSAL (government ser.)

alternate titles: superintendent, landfill operations

Directs and coordinates, through subordinate supervisory personnel, landfill site activities concerned with solid-waste disposal for governmental sanitation agency or private refuse-disposal company: Inspects site and confers with supervisory personnel to determine procedures and methods for utilizing site area for disposal activities and to remain in compliance with specifications of environmental impact study. Plans sequences of waste disposal operations to obtain optimum utilization of site basing plans on such factors as past and predicted solid-waste disposal and land reclamation requirements, quantity of waste handled daily, and space in site required for waste handled. Ensures that waste disposal activities are in compliance with public health insect and rodent control laws and regulations. Prepares records and reports on disposal activities, such as quantities of waste handled, receipts from operations, and actions taken to comply with public health and environmental regulations. May prepare operational budget for landfill waste disposal activities and submit budget to agency management. May examine loads of waste for recyclable material and direct sorting, handling, and recycling operations. May supervise workers engaged in waste disposal operations. May operate heavy equipment to compact and bury waste in private landfill disposal dump.
GOE: 05.02.06 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

184.167-082 MANAGER, STATION (air trans.)

Directs and coordinates airline station activities at transport station or terminal point located at airport to provide services for scheduled flight operations: Reviews station activity reports to ascertain data required for planning station operations. Directs preparation of work schedules to obtain optimum utilization of human resources and facilities. Coordinates activities of passenger reservations and ticketing, passenger services, ramp and cargo services, commissary services, and dispatching of aircraft to ensure operations meet company and government policies and regulations. Directs preparation of passenger lists, cargo manifests, and plans for stowage of cargo and baggage aboard aircraft. Evaluates training and performance records of employees to determine and formulate training designed to increase employee efficiency. May direct activities of TRANSPORTATION AGENTS (air trans.) in expediting movement of freight, mail, baggage, and passengers through station or from other company's terminal to station. May be designated in large airlines according to specific station activity directed as Manager, Commissary Service (air trans.); Manager, Flight Dispatching (air trans.); Manager, Flight Service (air trans.); Manager, Passenger Service (air trans.); Manager, Reservations-And-Ticketing (air trans.).
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-086 MANAGER, TELEGRAPH OFFICE (tel. & tel.)

Manages activities of branch or local telegraph office: Directs handling of circuits and telegrams. Supervises personnel, and coordinates work of various departments. Answers customer inquiries, suggests services, and adjusts complaints to promote goodwill. Reviews financial accounts and records, verifies accuracy of daily cash balances, remittances, and bank deposits. Compiles and analyzes statistical and operating reports and data. Writes correspondence.

GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

184.167-090 MANAGER, TRAFFIC (radio-tv broad.)
Arranges for leasing of wire facilities to transmit radio and television programs to individual stations of network: Contacts communication companies and arranges for facilities to transmit programs from point of origin to network stations. Informs stations of noncommercial programs available for broadcast. Informs affiliated stations of charges to be made for commercial broadcasts and programs requiring special facility hookups. Directs activities of workers engaged in transmitting messages by teletype or simplex systems.
GOE: 11.12.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

184.167-094 MANAGER, TRAFFIC (any industry)
Directs and coordinates traffic activities of organization: Develops methods and procedures for transportation of raw materials to processing and production areas and commodities from departments to customers, warehouses, or other storage facilities. Determines most efficient and economical routing and mode of transportation, using rate and tariff manuals and motor freight and railroad guidebooks. Directs scheduling of shipments and notifies concerned departments or customers of arrival dates. Initiates investigations into causes of damages or shortages in consignments or overcharges for freight or insurance. Conducts studies in areas of packaging, warehousing, and loading of commodities and evaluates existing procedures and standards. Initiates changes designed to improve control and efficiency of traffic department. May negotiate contracts for leasing of transportation equipment or property. May assist in preparing department budget.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-098 MANAGER, TRAFFIC I (tel. & tel.)
Directs traffic operations in central telegraph office: Directs transmitting and receiving of telegrams and facsimile recordings and clearing of communications circuits. Evaluates data, such as traffic loads, speed and accuracy of message handling, and cost factors to improve services. Coordinates work activities of various operational departments. Hires, promotes, discharges, or transfers employees. Regulates production and performs other administrative or supervisory functions.
GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

184.167-102 MANAGER, TRAFFIC I (motor trans.)
Directs and coordinates activities concerned with documentation and routing of outgoing freight, and verification and reshipment of incoming freight, at motor-transportation company warehouse: Directs activities of workers engaged in assigning tariff classifications according to type and weight of freight or merchandise, routing and scheduling shipment by air, rail, or truck, and preparing billings from tariff and classification manuals. Reviews documents to ensure that assigned classifications and tariffs are in accordance with mode of transportation and destination of shipment. Investigates shipper or consignee complaints regarding lost or damaged merchandise or shortages in shipment to determine responsibility. Directs preparation of claims against carrier responsible and corresponds with shipper or consignee to effect settlement. Schedules shipments to ensure compliance with interstate traffic laws and regulations and company policies.
GOE: 07.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

184.167-106 MANAGER, TRAFFIC II (tel. & tel.) alternate titles: traffic chief; traffic superintendent
Directs and coordinates telephone traffic activities within specific geographical area: Directs activities, such as customer service, traffic measurements and operations, and traffic studies. Directs preparation of budgets and control and assignment of personnel to meet traffic-volume requirements. Participates in public relations activities with customer representatives and attends service and professional organizational meetings as part of company's public relations program. Consults with representatives of connecting telephone companies to resolve service problems.
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

184.167-110 MANAGER, TRUCK TERMINAL (motor trans.) alternate titles: terminal manager
Directs and coordinates activities of terminal used by trucking concerns as intermediate freight distribution or shipping point: Reviews schedules to ascertain trucking concerns having freight consignments for terminal and shipments originating from terminal in order to plan activities. Assigns workers to specific duties, such as loading or unloading trucks, checking incoming and outgoing shipments against bills of ladings, and moving freight into and out of storage. May hire terminal personnel or order workers from union dispatch office. May provide garage services for trucks.
GOE: 11.11.03 STRENGTH: S GED: R4 M3 L3 SVP: 8 DLU: 77

184.167-114 MANAGER, WAREHOUSE (any industry) alternate titles: storekeeper; superintendent, storage area; superintendent, warehouse; warehouse supervisor
Directs warehousing activities for commercial or industrial establishment: Establishes operational procedures for activities, such as verification of incoming and outgoing shipments, handling and disposition of materials, and keeping warehouse inventory current. Inspects physical condition of warehouse and equipment and prepares work order for repairs and requisitions for replacement of equipment. Confers with department heads to ensure coordination of warehouse activities with such activities as production, sales, records control, and purchasing. Screens and hires warehouse personnel and issues work assignments. Directs salvage of damaged or used material. May participate in planning personnel-safety and plant-protection activities.
GOE: 11.11.03 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 88

184.167-118 OPERATIONS MANAGER (motor trans.)
Directs and coordinates activities of workers engaged in crating, moving, and storing household goods and furniture: Inspects warehouse facilities and equipment and recommends changes in allocation of space, and crating procedures to WAREHOUSE SUPERVISOR (motor trans.). Purchases moving equipment such as dollies, pads, trucks, and trailers. Plans pickup and delivery schedules for TRUCK DRIVERS, HEAVY (any industry). Answers such inquiries as type of service offered, rates, schedules, and areas serviced. Examines items to be moved, to ascertain approximate weights and type of crating required. Investigates customers' complaints involving such matters as damaged items, overcharges, and delay in shipment, and makes necessary adjustment. Interviews, selects, trains, and assigns new personnel. May call on customers to solicit new business. May prepare cost estimates for clients.
GOE: 11.11.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

184.167-122 PORT-TRAFFIC MANAGER (water trans.)
Manages operations of traffic division for port authorities: Enforces rules and regulations, such as berthing of ships, handling and storing of cargo, and use of port facilities. Directs policing and cleaning activities of harbor department land, streets, buildings, and water areas. Ensures that activities concerning revenue are documented and submitted to accounting division. Advises port authorities on rates and revisions of port tariff. Solicits steamship companies to use port facilities. Directs activities concerned with compiling daily and annual ship and cargo statistics.
GOE: 11.05.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.167-126 SERVICE SUPERVISOR III (utilities)
Directs and coordinates, through subordinates, activities of workers who inspect, maintain, and test distribution lines, and install meters and customer service drops, but does not supervise major repair activities involving use of line crews.
GOE: 05.02.02 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

184.167-130 STATION MANAGER (r.r. trans.)
Directs and coordinates activities of railroad station employees and authorizes departure of trains: Notifies employees of changes in arrival and departure times of trains, boarding track numbers, and other information affecting passengers for announcement over loudspeaker and for posting on callboard. Ensures that shift workers and train crews report as scheduled, or that replacements are obtained. Authorizes departure of passenger trains after transfer of mail and baggage is completed, delaying departure for arrival of connecting train if necessary. Authorizes repairs to station facilities and directs activities of custodial and maintenance workers. Investigates passenger service complaints to ensure efficient and courteous service. May negotiate with concessionaires to lease station space or facilities for restaurants, newsstands, advertising displays, and parking.
GOE: 11.11.03 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

184.167-134 STATIONS-RELATIONS-CONTACT REPRESENTATIVE (radio-tv broad.)
Coordinates program presentations between network and independently owned radio and television stations comprising network: Aids in formulating network policies. Advises station personnel on operating procedures to disseminate programs to all parts of network. Acts as liaison officer between various stations and networks.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

184.167-138 SUPERINTENDENT OF GENERATION (utilities) alternate titles: superintendent, operations
Directs and coordinates generation of electrical energy by interconnected generating stations throughout electric utility system: Analyzes fuel consumption and power output reports to determine need for plant maintenance and repair work. Coordinates plant shutdowns for emergency and periodic inspection and repair. Directs and coordinates testing activities and analyzes such test data as heat input, heat output, and boiler and turbine efficiency, to evaluate capability and efficiency of generating stations. Directs activities of maintenance crews servicing scattered generating stations. May direct operation of substations and transmission lines [SUPERINTENDENT, TRANSMISSION (utilities)].
GOE: 05.02.01 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 77

184.167-142 SUPERINTENDENT, COLD STORAGE (any industry)
Coordinates activities of workers in cold storage plant to ensure perishable commodities are stored with minimum spoilage: Specifies refrigeration temperatures for commodities, such as vegetables, milk products, and meat to be stored and supervises REFRIGERATING ENGINEERS (any industry) in maintaining temperatures within specified limits.
GOE: 05.06.02 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

184.167-146 SUPERINTENDENT, COMPRESSOR STATIONS (pipe lines)
Directs and coordinates operational and maintenance activities of system of compressor stations, located at transmission terminals and at intermittent points along pipeline, to boost pressure in pipeline and expedite transmission of natural gas to distribution points: Directs preparation of operation, safety, and main-

tenance manuals for compressor stations. Directs and coordinates, through COMPRESSOR-STATION ENGINEER, CHIEF (pipe lines), activities of personnel to ensure adjustments of gas pressures for transmission are performed safely and in accordance with prescribed procedures. Selects, and directs training of, supervisory personnel for compressor stations. Develops plans for additional stations, as required, and recommends design of station structures and types of machinery, such as compressors, driving engines, generators, and auxiliary equipment to engineering personnel. Directs and coordinates activities, such as testing of new or repaired machinery, and maintenance and repair of machinery and station structures, to ensure uninterrupted transmission of gas.
GOE: 05.02.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-150 SUPERINTENDENT, DISTRIBUTION I (utilities) alternate titles: chief power dispatcher; district manager; manager, electric distribution department

Supervises and coordinates activities of workers engaged in maintenance and extension of power-distribution facilities, adjustment of customer complaints, and other activities concerned with distribution of electrical energy from substations to customers of electric power company. May be designated Superintendent, Overhead Distribution (utilities); Superintendent, Underground Distribution (utilities).
GOE: 05.02.01 STRENGTH: S GED: R5 M5 L4 SVP: 9 DLU: 77

184.167-154 SUPERINTENDENT, DISTRIBUTION II (utilities) alternate titles: superintendent, city plant; superintendent, gas distribution; superintendent, operations division

Directs and coordinates activities of workers in city gas-distribution plant to ensure adequate facilities and gas supply to meet consumer demands with minimum interruptions to service. Schedules activities, such as gas dispatching, pressure regulation, pumping of drips, odorization of gas, and patrolling and inspection of facilities. Authorizes and supervises, through subordinate supervisory personnel, repair and construction or installation of structures, mains, services (pipes leading from mains to residences), meters, regulators, gas appliances, and other distribution equipment. Formulates policies for promoting customer relationships and directs activities of workers engaged in investigating and adjusting distribution or appliance complaints.
GOE: 05.02.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-158 SUPERINTENDENT, DIVISION (motor trans.; r.r. trans.) alternate titles: division superintendent

Plans and administers operations of railroad or bus transportation system within geographic division, consistent with safe and efficient utilization of human resources and equipment, and convenience of shippers and passengers. Establishes and enforces administrative policies and procedures. Evaluates reports of train or bus movements, emergency changes in schedules, accidents, weather conditions, and other factors influencing operations to make decisions affecting service. Coordinates repair and maintenance of equipment within division, and recommends capital investments and erection of structures or other facilities. Investigates causes of accidents and delays in traffic and takes steps to ensure that they will not recur. Reviews complaints from shippers and passengers regarding improper or discourteous service. Interprets company agreements for subordinate officials to resolve or prevent labor-relations problems. Confers with state government regulatory commissions and other transportation systems to establish new fares, schedules, routes, and traffic agreements. May personally inspect company facilities and equipment throughout division.
GOE: 11.05.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

184.167-162 SUPERINTENDENT, ELECTRIC POWER (utilities) alternate titles: manager, public utility, rural

Plans and directs activities of major division, district, plant, or department of utility company, or directs particular phase of operation, concerned with production and distribution of electrical power. Interprets company policies and methods and develops specific operating procedures. Delegates functional activities to workers and establishes supervisory schedules to define authority for independent decisions imperative to continuous service to public and safety of workers. Recruits, trains, and supervises workers directly or through subordinate supervisors. Investigates, evaluates, and determines best application of new developments in electric power industry, and devises other means of securing maximum efficiency of personnel and equipment within his jurisdiction. Anticipates and forecasts power consumption and economic trends, prepares budget recommendations, and makes related decisions in order to keep facilities and system operation concurrent with economic changes. Cooperates with other SUPERINTENDENTS, ELECTRIC POWER (utilities) in solving interrelated administrative, organizational, and technical problems. Directs maintenance of property records and upkeep of equipment and structures. Is usually required to possess an electrical or mechanical engineering background, extensive familiarity with electric power systems, and experience directly related to particular phase of electrical activity superintended.
GOE: 05.02.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.167-166 SUPERINTENDENT, GENERATING PLANT (utilities) alternate titles: chief operating engineer

Directs and coordinates operation of major generating plant of electric power system. Directs and coordinates periodic plant inspections to evaluate condition of equipment. Prepares work orders for major maintenance or repairs. Reviews daily operating reports and other records to ensure specified operating characteristics in control of steam and electric power generating equipment. Confers with personnel, such as SWITCHBOARD OPERATOR (utilities) 952.362-034 to diagnose equipment malfunctions during emergencies and directs activities to restore normal operation or to shutdown malfunctioning unit. Notifies LOAD DISPATCHER (utilities) 952.167-014 of shutdown or major changes in power output of unit preparatory to transfer of load to other units. Cooperates with SUPERINTENDENT, TESTS (utilities) 184.167-218 and SAFETY INSPECTOR (utilities) 821.367-014 in routine and special tests and plant inspections to improve operations and maintain safe working conditions. May prepare operating budget. May perform personnel activities of department, such as recruitment, hiring, and training.
GOE: 05.02.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 81

184.167-170 SUPERINTENDENT, MAINTENANCE (motor trans.) alternate titles: shop superintendent

Directs and coordinates activities of workers engaged in repairing and maintaining motor freight transportation equipment to ensure safe and efficient operation. Purchases parts and records expenditures. Determines specifications for new equipment and directs construction of truck bodies. Contracts for repair services not performed in shop.
GOE: 05.02.02 STRENGTH: S GED: R4 M4 L5 SVP: 7 DLU: 77

184.167-174 SUPERINTENDENT, MAINTENANCE (air trans.)

Directs and coordinates work of employees engaged in maintaining and repairing aircraft. Plans, schedules, and directs, through subordinates, activities of maintenance department concerned with maintaining and repairing engines, airframes, and electrical and hydraulic systems of aircraft. Reviews production records and time-cost statistics, and confers with supervisory personnel to ensure adherence to company standards and to locate areas of inefficient operation. Confers with management to recommend modifications of factors, such as employee and equipment utilization, supervisory and production methods, and procedures to increase efficiency of department. Provides technical advice to subordinates on operating problems. May participate in collective bargaining and settlement of grievances.
GOE: 05.02.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-178 SUPERINTENDENT, MAINTENANCE OF EQUIPMENT (motor trans.; r.r. trans.)

Directs and coordinates activities of workers engaged in servicing and repairing buses, trolley cars, or other operating vehicles of busline or railway transit system. Establishes policies for inspection, maintenance, and repair of vehicles. Supervises subordinate supervisors who assign and direct activities in servicing and repairing equipment. Authorizes and arranges for purchasing supplies, tools, and machinery. Consults with officials of operating and servicing divisions on vehicle replacement needs. May investigate and evaluate cause and extent of damage to vehicles involved in accidents.
GOE: 11.11.03 STRENGTH: S GED: R4 M5 L4 SVP: 8 DLU: 77

184.167-182 SUPERINTENDENT, MARINE (water trans.)

Manages on-shore activities for company vessels. Reads radio message from MASTER, SHIP (water trans.) to determine services requested. Requisitions ship's stores or equipment to be delivered on dock at vessel's arrival. Places orders for fuel oil and arranges for time of delivery. Orders personnel replacements from unions. Arranges for other services, such as inspections, tests, overhauls, as required by federal regulations or by company. Notifies MASTER, SHIP (water trans.) by radio of arrangements made. When licensed to command ship, may be designated Port Captain (water trans.).
GOE: 11.11.03 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 77

184.167-186 SUPERINTENDENT, MARINE OIL TERMINAL (water trans.)

Directs and coordinates marine petroleum terminal activities concerned with delivery of crude and fuel oil, gasoline, and other petroleum products to, and receipt from, tankers, barges, or ships; storing of products in terminal tanks; and transfer of products by pipelines. Reviews data, such as vessel arrival date and manifest of cargo showing types and quantities of products to be offloaded or delivered, in order to plan work activities. Determines if storage tanks have capacity to hold quantities of products being discharged or quantities of products to be loaded, using gauging reports showing contents and levels in each tank. Notifies pipeline or refinery personnel of transfer requirements. Directs and coordinates, through subordinate supervisory personnel, connecting of oil transfer hoses, lining up of cross-connections and valves to pump products into or from vessels' tanks or storage tanks. Coordinates activities, such as gauging of tanks, recording tank contents temperature, and obtaining samples of products for analysis, to ensure specified quantities and types of products are received or delivered. Directs preparation of reports on receipt or delivery to and from vessels, pipeline, or storage tanks. Prepares report on status of storage tanks' contents and quantities of products in each tank. Requisitions and schedules repair and maintenance work on terminal facilities and equipment for periods when oil movements are not scheduled.
GOE: 05.02.07 STRENGTH: S GED: R4 M5 L4 SVP: 8 DLU: 77

184.167-190 SUPERINTENDENT, MEASUREMENT (petrol. & gas; pipe lines) alternate titles: measurement superintendent

Directs and coordinates activities concerned with operation and maintenance of control stations used to regulate, measure, and direct flow of crude oil, petroleum products, or natural gas in pipeline system. Plans and directs studies on flow control and measurement of petroleum products and gas and directs activities of workers evaluating newly developed devices. Refers selected devices to

engineering personnel for feasibility and test studies prior to purchase and installation in system. Ascertains need for new control stations, extensions of existing pipelines, and determines locations and sizes of lines from data on forecasts of estimated sales volume and potential customers available at distribution points. Recommends design features of control stations to engineering personnel and directs activities concerned with installation, testing, and maintenance of control and measurement equipment, such as pressure gauges, thermostats, and specialized metering devices in system. Develops plans for coordinating station activities of pipeline system to regulate and measure flow of products from point of origin into and from distribution points in system.
GOE: 05.02.01 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 77

184.167-194 SUPERINTENDENT, METERS (utilities) alternate titles: meter shop superintendent

Coordinates activities of workers engaged in installation, testing, maintenance, and repair of meters used in electric, gas, steam, and water utilities: Develops testing procedures and standards for meters and installations. Provides technical advice and assistance to customers, contractors, and utility personnel concerning metering problems. Directs training of personnel in testing and maintenance of meters and metering installations.
GOE: 05.10.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-198 SUPERINTENDENT, PIPELINES (pipe lines)

Coordinates engineering, construction, operation, and maintenance activities of cross-country pipeline used to transport crude oil, petroleum products, natural gas, or coal slurry from transmission to distribution terminal: Reviews forecasts of customer demands to determine additional pipeline construction or alteration requirements on pipeline system and facilities. Develops plans to meet expanded demands and requests engineering section to design and prepare specifications for expanded facilities and capacity, award construction contracts, and assign project engineering personnel for on-site direction. Directs and coordinates, through other management personnel, scheduling, measuring, transmission, and maintenance activities to ensure efficient operation of pipelines and minimize losses. Authorizes procurement of equipment, materials, and supplies required for operations and maintenance. May be designated according to area of pipeline for which responsible as Pipeline Superintendent, District (pipe lines); Pipeline Superintendent, Division (pipe lines).
GOE: 05.02.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

184.167-202 SUPERINTENDENT, POWER (r.r. trans.) alternate titles: superintendent, electrical department

Directs procurement of electric power for street-railway or electrical railway system, and directs and coordinates activities of workers engaged in planning, installing, and maintaining power generation and distribution facilities: Confers with officials of power companies to arrange for power. Directs activities of company-owned generating plant through subordinate officials. Directs subordinates who supervise construction, maintenance, and repair of distribution system including trolley wire, power lines, poles, underground conduits, and trolley contact signals, when working for street-railway system. Approves plans and designs for electrical distribution equipment.
GOE: 05.02.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-206 SUPERINTENDENT, STATIONS (motor trans.; r.r. trans.)

Manages stations and terminals of busline, subway, elevated or interurban railway transit system and confers with other transportation companies on matters, such as fares, routes, and schedules: Examines books and records of stations and terminals. Analyzes financial reports from stations and terminals and prepares reports for management showing profits and expenditures. Analyzes statistics to determine which areas require additional terminals and stations to provide adequate service to public. Reviews agreements with other transportation companies to ensure against or settle disputes concerning fares, routes, and schedules. Confers with governmental commissions and management to establish policy concerning adequate service to public.
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L4 SVP: 6 DLU: 77

184.167-210 SUPERINTENDENT, SYSTEM OPERATION (utilities) alternate titles: planning-division superintendent

Directs activities of system-planning department of electric power company to ensure safe, economical, efficient scheduling of loads and use of facilities to meet normal and emergency power demands. Supervises such personnel as PROTECTION ENGINEERS (utilities) and ENGINEER OF SYSTEM DEVELOPMENT (utilities) concerned with planning and development responsibilities to promote maximum operating efficiency and safety of system.
GOE: 05.02.01 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 77

184.167-214 SUPERINTENDENT, TERMINAL (water trans.)

Manages operations of freight terminal to load and discharge ships' cargoes: Studies ship's manifests to determine whether cargo should be stored in transit sheds or on wharves and to determine what equipment is needed to handle cargo. Notifies SUPERINTENDENT, STEVEDORING (water trans.) to assign workers to jobs and arrange dock space for freight. Computes cost of operations for tonnage handled. Directs purchase of cargo-handling gear and maintenance of terminal and company equipment. May order railroad cars or hire trucks and tractors for transporting freight from docks. When working with company whose terminal has piers located at different places, may be designated Superintendent, Pier (water trans.). May direct operations at container terminal and be designated Superintendent, Container Terminal (water trans.).
GOE: 11.11.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-218 SUPERINTENDENT, TESTS (utilities)

Directs and coordinates activities of workers conducting chemical, physical, mechanical, and electrical tests on materials, apparatus, and equipment used in electric power utility: Develops and prepares standard testing procedures manuals for conducting tests and fault analysis research in system. Plans testing activities and prepares schedules for conducting tests, considering such factors as priorities, budget limitations, available human resources, testing facilities, and equipment, in order to obtain optimum utilization of human resources and equipment. Analyzes test results and reports on newly developed apparatus and equipment, malfunctioning and repaired apparatus and equipment, system disturbances, and materials. Consults with other engineering personnel, manufacturers' representatives, and personnel of other utilities to keep abreast of newly developed apparatus and equipment, testing policies and procedures, and modifications of existing equipment. Directs design and testing of new equipment or modification of existing testing equipment. Recommends awarding of contracts for purchase of new equipment, apparatus and materials, basing recommendations on results of tests. May be designated according to testing operations directed as Electrical-Tests Supervisor (utilities); Superintendent, Materials-And-Apparatus Tests (utilities); Superintendent, Meter Tests (utilities); Superintendent, Research-And-Fault-Analysis Tests (utilities); Superintendent, Station-And-Protection-System Tests (utilities).
GOE: 05.01.03 STRENGTH: S GED: R5 M5 L4 SVP: 9 DLU: 77

184.167-222 SUPERINTENDENT, TRANSMISSION (utilities)

Directs operation and maintenance of substations and transmissions lines located at various points throughout electric power system, and the transmission of electrical energy from source to substations: Confers with management and executives of other divisions on such matters as design, construction, operation, and maintenance of system equipment. Formulates and interprets company policies and operating procedures to subordinate supervisory personnel. Prepares budget estimates. Reviews and approves material requisitions and work authorization. Investigates, evaluates, and prepares reports on application of new developments. Reviews and approves drawings for facilities. Prepares, or directs preparation of specifications for materials and work methods. Analyzes bids for materials, equipment, and services, and recommends purchases and awarding of contracts. Directs selection and training of new workers through subordinates. Schedules operation and maintenance work programs and periodically inspects work activities to ensure compliance with company and government regulations. Prepares monthly operating reports.
GOE: 05.02.01 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 77

184.167-226 SUPERINTENDENT, TRANSPORTATION (any industry) alternate titles: manager, transportation; motor vehicles supervisor; superintendent, automotive; transportation department head

Directs and coordinates operational activities of automotive equipment department of an establishment: Procures state-required certificates of title and arranges for registrations and state inspections. Inspects automotive equipment, scheduling needed repair or service work. Coordinates operation and maintenance of equipment, storage facilities, and repair facilities. Directs recording of expenses and analyzes purchase and repair costs to control expenditures. May arrange for insurance coverage on vehicles. May plan and direct safety campaigns. May negotiate with vendors to purchase automotive equipment, materials, and supplies. May assign trucks and passenger cars for use [DISPATCHER, MOTOR VEHICLE (clerical)].
GOE: 11.05.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

184.167-230 SUPERVISOR OF COMMUNICATIONS (any industry)

Directs and coordinates activities concerned with acquisition, installation, and maintenance of equipment in private communications system of commercial, financial, industrial, transportation firm, or public utility: Directs studies to be conducted on existing communications system and equipment, such as present and projected volume of communications, effectiveness and adequacy of system, and estimated equipment replacement and maintenance costs. Coordinates engineering studies to obtain data on new equipment and systems developments in communications field and adaptability of equipment to existing system. Analyzes reports, records, and recommendations to determine whether equipment should be repaired or replaced, additional equipment installed, or newly developed equipment acquired considering such factors as predicted volume of communications traffic, acquisition and installation costs, estimated improvement in efficiency and effectiveness of operations, and changes in operational procedures resulting from new system installation. Prepares recommendations for acquisition of newly developed, additional, or replacement equipment based on analyses for action by management. Directs preparation of, or prepares, equipment specifications and floor plans for installation in offices or departments. Contacts vendors to arrange for bids for lease or purchase of equipment. Approves acquisition and installation of equipment within limitations approved by management. Coordinates equipment installation and maintenance activities with operations to avoid disruptions in communications and ensure efficiency of operations.
GOE: 05.02.04 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

184.167-234 SUPERVISOR OF WAY (r.r. trans.) alternate titles: maintenance-of-way supervisor

Directs personnel in maintenance-of-way department and coordinates maintenance and repair activities with other functions of street-railway system: Issues instructions to personnel engaged in removal of snow or other obstruction from

s, and construction, maintenance, and repair of roadway, bridges, and other
tures. Dispatches crews of workers and equipment during emergencies,
as breakdowns, derailments, floods, and landslides, to make necessary re-
for restoration of service. Inspects equipment along way, periodically, to
tain that it is maintained according to standards. Directs personnel engaged
aintaining time and work records.
05.02.02 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

167-238 SUPERVISOR, SEWER SYSTEM (waterworks)
rects and coordinates work of subordinate personnel engaged in installing,
taining, repairing, servicing, enlarging, and relocating sewage facilities.
ies proposed projects to evaluate most feasible approach for excavations
repairs, using land plats, topographical maps, and other source data. Deter-
s need for material and equipment required to complete project, such as
and size of pipe, fittings and unions, cranes, bulldozers, welders, or trench-
nachines, according to size and nature of project. Inspects project to evalu-
progress and assure conformance to specifications. Confers with rep-
tatives of other utilities to coordinate work schedules for most effective
economic repair activities. Writes reports concerning human resource utili-
n, work progress, and disposition of materials. Prepares budget estimates
l on anticipated material and personnel needs. May effect liaison between
operations and top management or assume regional or zonal responsibility.
05.02.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

167-242 SUPERVISOR, TERMINAL OPERATIONS (motor trans.)
anages terminal operations of passenger or freight motor transportation
pany. Observes personnel performing duties and studies terminal operations
ts on revenues derived, costs of operation, accidents, and frequency of per-
or merchandise claims for losses or damages, to determine changes in
practices and procedures necessary to improve operations and reduce
s. Inspects terminal facilities for conformance to prescribed standards of
and cleanliness, and for maintenance or repair required, and initiates req-
ons for corrective actions. Enforces worker compliance with established
rules and regulations and measures to protect safety of employees and
mers and security of merchandise, property, and equipment. Reviews acci-
reports and takes actions prescribed by company policy. Evaluates worker
rmance and recommends or initiates personnel actions. May process or at-
to resolve employee grievances according to union contract procedures.
11.05.02 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

167-246 SUPERVISOR, WATERWORKS (waterworks)
ns and coordinates activities of workers in operation and maintenance of
works system to ensure adequate water supply for human consumption,
trial or agricultural use. Schedules and coordinates activities concerned
processing and distributing water. Assigns personnel to shifts to operate
ng and chemical treatment, coagulating and settling basins, and other plant
ies. Determines action to be taken in event of emergencies such as ma-
equipment or power failure, or need to release dammed water to effect
control. Prepares plans and specifications for new equipment or modifica-
f existing equipment to effect increased operational capacity or efficiency.
ws and evaluates water reports, records, logs, and graphs to confirm ade-
of present and projected water needs. Prepares budget estimates based
ticipated material and personnel needs. May prepare reports concerned
chemical and bacteriological analyses of water for administrative purposes
overnmental agencies. May direct construction and maintenance of roads
ommunication lines used in operating water supply system.
05.02.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

67-250 TARIFF PUBLISHING AGENT (business ser.)
s applications with state and federal regulatory agencies, on behalf of cer-
ed carrier or public utility and under power of attorney, to establish
ule of rates and charges. Receives rates compiled by clerical personnel.
zes and arranges tariff to cover one or more carrier or utility and receives
of attorney for any new coverage. Files with federal and state commis-
new or revised tariff with new power of attorney. May participate in fed-
riff proceedings. May assist attorneys preparing transportation or utility
ients.
11.04.04 STRENGTH: S GED: R4 M3 L3 SVP: 8 DLU: 77

67-254 TERMINAL SUPERINTENDENT (r.r. trans.) **alternate ti-**
tles: assistant superintendent, transportation
ects and coordinates activities of personnel involved in transportation and
ng of freight within geographic subdivision of railroad. Investigates train
ments or other accidents and directs clean-up operations. Directs activities
kers within railroad stations and terminals.
11.11.03 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

67-258 TESTING-AND-REGULATING CHIEF (tel. & tel.)
ects and coordinates, through shift supervisory personnel, activities con-
with testing, regulating, and maintaining telegraphic channels and cir-
nd associated terminal apparatus to ensure continuity of wire services.
ws logs and reports and confers with shift supervisory personnel to ascer-
ta required for planning, testing, and regulating activities. Prepares work
les assigning workers to shift supervisory personnel, considering work
pertise in diagnosing and isolating circuit and apparatus malfunctions and
edge and experience in adjusting and maintaining telegraphic circuits,
ls, and apparatus, such as teleprinters, repeaters, and carriers. Authorizes
tions for replacement parts, materials, and supplies. Prepares reports and
records on testing and regulating activities, circuit and apparatus malfunctions, and resulting adjustment and maintenance functions.
GOE: 05.02.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-262 TRAIN DISPATCHER (r.r. trans.) **alternate titles: ctc operator; dispatcher; traffic-control operator**

Coordinates railroad traffic on specified section of line from CTC (centralized-traffic-control) unit that electrically activates track switches and signals. Reads train orders and schedules to familiarize self with scheduled runs, destination of trains, times of arrivals and departures, and priority of trains. Monitors CTC panelboard that indicates location of trains by lights that illuminate as train passes specified positions on run. Operates controls to activate track switches and traffic signals. Reroutes trains or signals LOCOMOTIVE ENGINEER (r.r. trans.) to stop train or change speed according to traffic conditions. Talks by telephone with crewmembers to relay changes in train orders and schedules, and to receive notification of emergency stops, delays, or accidents. Records time each train reaches specified point, time messages are given or received, and name of person giving or receiving message. May chart train movements on graph to estimate arrival times at specified points. May operate teletypewriter to transmit messages to freight offices or other points along line.
GOE: 07.04.05 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

184.167-266 TRANSPORTATION-MAINTENANCE SUPERVISOR (any industry)

Directs and coordinates, through supervisory personnel, activities of workers engaged in maintenance of transportation equipment in industrial establishment. Confers with department heads to arrange for equipment, such as motor vehicles, railroad rolling stock and equipment, and within-plant trackage systems to be released from service for inspection, service, or repair. Schedules repairs and follows up on repairs made.
GOE: 05.02.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-270 WATER CONTROL SUPERVISOR (waterworks)

Directs and coordinates, through subordinate supervisory personnel, activities of workers engaged in allocation, regulation, and delivery of government controlled water in irrigation district, and in repair and maintenance of irrigation facilities. Reviews water-rights agreements, irrigation contracts, and departmental policies and regulations to determine equitable distribution of water. Schedules time and amount of water to be delivered to users in accordance with instructions. Inspects channels, siphons, tunnels, weirs, roads, bridges, buildings, and equipment for need of repair and maintenance. Assigns supervisory personnel to sanitation, maintenance and repair activities and inspects work for compliance with prescribed operational procedures and methods. Confers with water users to investigate and resolve complaints and public relations problems. Notifies water users of changes in policies and procedures.
GOE: 05.02.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

184.167-274 WHARFINGER, CHIEF (water trans.)

Plans and directs activities of persons in wharfage department to ensure that fees assessed shipping companies, using municipal facilities, are in accordance with port tariff. Assigns responsibility to personnel for berthing, compiling dockage, wharfage, demurrage, and storage reports, and enforcing safety regulations. Reviews department reports to verify accuracy of assessments. Assigns berth, dock, and shed space for incoming ships. Prepares recommendations for assignment of facilities to companies on a continuous basis. Analyzes reports to determine efficiency of dock operations and recommends improvements. Contacts representatives of shipping companies to resolve problems pertaining to facilities and to maintain business relationship.
GOE: 11.11.03 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

184.167-278 YARD MANAGER (r.r. trans.)

Directs and coordinates activities of workers engaged in makeup and breakup of trains and switching inbound and outbound traffic of railroad yard. Reviews train schedules and switching orders, and observes traffic movement in yard to determine which tracks can be made available to accommodate inbound and outbound traffic. Directs routing of inbound and outbound traffic to specific tracks. Reviews waybills or other shipping records indicating material to be loaded or unloaded, tonnage of cargo, type of carrier, and planned routes. Provides instruction concerning switching of cars, makeup and breakup of trains, and routing of inbound and outbound traffic to ensure safe and efficient conduct of yard activities.
GOE: 11.11.03 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

184.167-282 DIVISION ROAD SUPERVISOR (r.r. trans.)

Directs and coordinates through supervisory personnel activities of railroad engine crews to ensure efficient operation of railroad in specified jurisdictions. Interviews engine crew personnel to evaluate workers' knowledge of operating and train-handling rules and of railroad route characteristics, such as locations and meanings of signals and types of grades on routes. Rides trains and observes personnel to determine conformance to regulations governing matters, such as train signals, train timetables, and emergency procedures. Determines speed of trains, using radar gun and electrical speed-recording device, and documents detected violations. Conducts investigations of train wrecks to determine causes, to assess equipment damage, to identify personnel responsible, and issues reports of findings.
GOE: 05.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 86

184.167-286 GENERAL CAR SUPERVISOR, YARD (r.r. trans.)

Directs and coordinates, through subordinate supervisors, activities of workers engaged in inspection, repair, and maintenance of railroad freight cars, uti-

lizing knowledge of railroad maintenance regulations: Analyzes production reports, work schedules, and freight car repair list to determine efficient utilization of human resources, and recommends to superiors increasing, reducing, or shifting human resources as necessary to complete work requirements. Fills out daily worksheets identifying defective freight cars, necessary repairs, and priority of repairs for use of subordinate supervisors. Notifies YARD MANAGER (r.r. trans.) 184.167-278 to close tracks on which freight trains are being inspected to other rail traffic. Coordinates dispatching of wreck crews and heavy equipment to wreck site within yard or assigned geographic area. Contacts private contractors to rent equipment needed at wreck site. Informs consignees of damaged freight cars and obtains permission to transfer loads when necessary. Observes work in yard and repair shop to determine that areas are clean and free of hazards. Serves on committees to investigate causes of wrecks. Conducts investigations to determine cause of accidental worker injuries. Submits written reports of findings to superiors.
GOE: 05.02.02 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

184.167-290 SUPERVISOR, COMMUNICATIONS-AND-SIGNALS (r.r. trans.)

Directs and coordinates, through subordinate supervisory personnel, activities of workers engaged in installing, maintaining, and testing communications and signalling equipment within specified jurisdiction of railroad: Reviews reports that describe handling of communications and signal irregularities to discern whether deployment of personnel and maintenance procedures followed administrative and labor regulations. Discusses causes of irregularities with supervisor who directed repairs to suggest changes in inspection or maintenance techniques that would prevent recurrence of irregularities, utilizing knowledge of communication and signal functioning. Writes summary of reports indicating worker overtime involved and nature of equipment malfunctions and routes reports to superior. Confers with company engineers regarding major repairs or installation projects in communication and signal system to stay apprised of changes within system. Confers with supervisors throughout projects to provide technical assistance and to ensure availability of equipment needed to complete project.
GOE: 11.11.03 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 86

184.167-294 SUPERVISOR, TRAIN OPERATIONS (r.r. trans.)

Directs and coordinates activities of personnel engaged in scheduling and routing trains and engines in specified railroad territory: Observes record entries and monitors railroad radio communications and lights on train location panelboard to oversee train and engine movements along specified territory of railroad. Confers with railroad dispatchers to determine scheduling of trains and engines. Directs delays of train departures upon notification of substandard track conditions. Coordinates train movements to utilize train crews efficiently to schedule engines to arrive at service locations when due for maintenance and to maximize use of local trains versus special work trains. Scrutinizes train schedules and advises specified personnel of availability of tracks for scheduled repair and maintenance. Issues directives to subordinates to coordinate movement of expedited, late, or special railroad trains, using information received through railroad information network.
GOE: 05.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 86

184.267-010 FREIGHT-TRAFFIC CONSULTANT (business ser.) alternate titles: transportation consultant

Advises industries, business firms, and individuals concerning methods of preparation of freight for shipment, rates to be applied, and mode of transportation to be used: Consults with client regarding packing procedures and inspects packed or crated goods for conformance to shipping specifications to prevent damage, delay, or penalties. Selects mode of transportation, such as air, water, railroad, or truck without regard to higher rates when speed is necessary. Confers with shipping brokers concerning export and import papers, docking facilities, or packing and marking procedures. Files claims with insurance company for losses, damages, and overcharges of freight shipments.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

184.387-010 WHARFINGER (water trans.)

Compiles reports, such as dockage, demurrage, wharfage, and storage, to ensure that shipping companies are assessed specified harbor fees: Compares information on statements, records, and reports with ship's manifest to determine that weight, measurement, and classification of commodities are in accordance with tariff. Calculates tariff assessment from ship's manifest to ensure that charges are correct. Prepares and submits reports. Inspects sheds and wharves to determine need for repair. Arranges for temporary connection of water and electrical services from wharves. Reads service meters to determine charges to be made.
GOE: 07.02.04 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

185 WHOLESALE AND RETAIL TRADE MANAGERS AND OFFICIALS

This group includes managerial occupations concerned with selling merchandise to retailers; to industrial, commercial, institutional or professional users; or to other wholesalers; or acting as agents in buying merchandise for or selling merchandise to such persons or companies.

185.117-010 MANAGER, DEPARTMENT STORE (retail trade)

Directs and coordinates, through subordinate managerial personnel, activities of department store selling lines of merchandise in specialized departments: Formulates pricing policies for sale of merchandise, or implements policies set forth by merchandising board. Coordinates activities of nonmerchandising departments, as purchasing, credit, accounting, and advertising with merchandising departments to obtain optimum efficiency of operations with minimum costs in order to maximize profits. Develops and implements, through subordinate managerial personnel, policies and procedures for store and departmental operations and customer personnel and community relations. Negotiates or approves contracts negotiated with suppliers of merchandise, or with other establishments providing security, maintenance, or cleaning services. Reviews operating and financial statements and departmental sales records to determine merchandising activities that require additional sales promotion, clearance sales, or other sales procedures in order to turn over merchandise and achieve profitability of store operations and merchandising objectives.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

185.117-014 AREA SUPERVISOR, RETAIL CHAIN STORE (retail trade) alternate titles: operations manager

Directs and coordinates activities of subordinate managerial personnel involved in operating retail chain stores in assigned area: Interviews and selects individuals to fill managerial vacancies. Maintains employment records for each manager. Terminates employment of store managers whose performance does not meet company standards. Directs, through subordinate managerial personnel, compliance of workers with established company policies, procedures, and standards, such as safekeeping of company funds and property, personnel and grievance practices, and adherence to policies governing acceptance and processing of customer credit card charges. Inspects premises of assigned area stores to ensure that adequate security exists and that physical facilities comply with safety and environmental codes and ordinances. Reviews operational records and reports of store managers to project sales and to determine store profitability. Coordinates sales and promotional activities of store managers. Analyzes marketing potential of new and existing store locations and recommends additional sites or deletion of existing area stores. Negotiates with vendors to enter into contracts for merchandise and determines allocations to each store manager.
GOE: 11.11.05 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 86

185.137-010 MANAGER, FAST FOOD SERVICES (retail trade; wholesale tr.)

Manages franchised or independent fast food or wholesale prepared food establishment: Directs, coordinates, and participates in preparation of, and cooking, wrapping or packing types of food served or prepared by establishment, collecting of monies from in-house or take-out customers, or assembling food orders for wholesale customers. Coordinates activities of workers engaged in keeping business records, collecting and paying accounts, ordering or purchasing supplies, and delivery of foodstuffs to wholesale or retail customers. Interviews, hires, and trains personnel. May contact prospective wholesale customers, such as mobile food vendors, vending machine operators, bar and tavern owners, and institutional personnel, to promote sale of prepared foods, such as doughnuts, sandwiches, and specialty food items. May establish delivery routes and schedules for supplying wholesale customers. Workers may be known according to type or name of franchised establishment or type of prepared foodstuff retailed or wholesaled.
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 81

185.157-010 FASHION COORDINATOR (retail trade) alternate titles: fashion stylist

Promotes new fashions and coordinates promotional activities, such as fashion shows, to induce consumer acceptance: Studies fashion and trade journals, travels to garment centers, attends fashion shows, and visits manufacturers and merchandise markets to obtain information on fashion trends. Consults with buying personnel to gain advice regarding type of fashions store will purchase and feature for season. Advises publicity and display departments of merchandise to be publicized. Selects garments and accessories to be shown at fashion shows. Provides information on current fashions, style trends, and use of accessories. May contract with models, musicians, caterers, and other personnel to manage staging of shows. May conduct teenage fashion shows and direct activities of store-sponsored club for teenage girls.
GOE: 11.09.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

185.157-014 SUPERVISOR OF SALES (business ser.)

Coordinates and publicizes tobacco marketing activities within specified area: Visits tobacco growers, buyers, and auction warehouses to cultivate interest and goodwill. Develops publicity for tobacco industry. Investigates and confirms eligibility of buyers. Collects membership dues for tobacco Board of Trade. Schedules tobacco auction dates. Records quantity and purchase price of tobacco sold daily, and prepares reports specified by board. May prepare report of marketing activities for state and federal agencies. May review and verify reports for individual warehouses. May examine quality and growth of tobacco in fields of individual growers and inform buyers of results.
GOE: 11.09.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

185.157-018 WHOLESALER II (wholesale tr.)

Exports domestic merchandise to foreign merchants and consumers and imports foreign merchandise for sale to domestic merchants or consumers: Arranges for purchase and transportation of imports through company representatives abroad and sells imports to local customers. Sells domestic goods, materials, or products to representatives of foreign companies. May be required

to be fluent in language of country in which import or export business is conducted. May specialize in only one phase of foreign trade and be designated Exporter (wholesale tr.); Importer (retail trade; wholesale tr.).
GOE: 11.05.04 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

185.164-010 SERVICE MANAGER (retail trade)
Coordinates activities of service department in lawnmower sales and service establishment. Directs activities of workers through supervisory staff. Discusses with supervisory staff methods of assembling and repairing lawnmowers to ensure compliance with prescribed procedures. Interviews and hires workers. Maintains time and production records. Answers questions and discusses complaints with customers regarding services as specified in equipment warranty agreement. Assembles and tests operation of new lawnmowers to prepare mowers for sales floor, following assembly and test procedures and using handtools.
GOE: 05.10.02 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 86

185.167-010 COMMISSARY MANAGER (any industry)
Directs and coordinates activities of commissary store to sell to or provide company employees or other eligible customers with foodstuffs, clothing, or other merchandise: Determines quantities of foodstuffs or other merchandise required to stock commissary, from inventory records, and prepares requisitions or buys merchandise to replenish stock. Sells merchandise to company employees or other eligible customers or issues merchandise upon requisition by authorized personnel. Keeps records pertaining to purchases, sales, and requisitions. May issue foodstuffs and supplies to COOKS, CAMP (any industry) for preparation of meals.
GOE: 11.11.05 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

185.167-014 MANAGER, AUTOMOBILE SERVICE STATION (retail trade)
Manages automobile service station: Plans, develops, and implements policies for operating station, such as hours of operation, workers required and duties, scope of operations, and prices for products and services. Hires and trains workers, prepares work schedules, and assigns workers to specific duties, such as customer service, automobile maintenance, or repair work. Directs, coordinates, and participates in performing customer service activities, such as pumping gasoline, checking engine oil, tires, battery, and washing windows and windshield. Notifies customer when oil is dirty or low, tires are worn, hoses or fanbelts are defective, or evidece indicates battery defects, to promote sale of products and services, such as oil change and lubrication, tires, battery, or other automotive accessories. Reconciles cash with gasoline pump meter readings, sales slips, and credit card charges. Orders, receives, and inventories gasoline, oil, automotive accessories and parts. May perform automotive maintenance and repair work, such as adjusting or relining brakes, motor tune-ups, valve grinding, and changing and repairing tires. May sell only gasoline and oil on self-service basis and be designated Manager, Self-Service Gasoline Station (retail trade).
GOE: 11.11.05 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 81

185.167-018 MANAGER, DISTRIBUTION WAREHOUSE (wholesale tr.)
Directs and coordinates activities of wholesaler's distribution warehouse: Reviews bills of lading for incoming merchandise and customer orders in order to plan work activities. Assigns workers to specific duties, such as verifying amounts of and storing incoming merchandise and assembling customer orders for delivery. Establishes operational procedures for verification of incoming and outgoing shipments, handling and disposition of merchandise, and keeping of warehouse inventory. Coordinates activities of distribution warehouse with activities of sales, record control, and purchasing departments to ensure availability of merchandise. Directs reclamation of damaged merchandise.
GOE: 11.11.05 STRENGTH: S GED: R5 M3 L4 SVP: 6 DLU: 77

185.167-022 MANAGER, FOOD CONCESSION (hotel & rest.)
Manages refreshment stand or other food concession at public gatherings, sports events, amusement park, or similar facility: Purchases refreshments, according to anticipated demand and familiarity with public taste in food and beverages. Directs storage, preparation, and serving of refreshments by other workers at refreshment stand or circulating throughout audience. Assigns VENDORS (amuse. & rec.) to locations. Tabulates receipts and balances accounts. Inventories supplies on hand at end of each day or other designated period.
GOE: 09.04.01 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

185.167-026 MANAGER, MACHINERY-OR-EQUIPMENT, RENTAL AND LEASING (any industry)
Directs and coordinates activities of establishment engaged in renting or leasing machinery, tools and equipment to companies involved in business operations such as manufacturing, petroleum production, construction or materials handling, or to individuals for personal use: Confers with customer to ascertain article required, duration of rental time, and responsibility for maintenance and repair, in order to determine rental or leasing charges based on such factors as type and cost of article, type of usage, duration of rental or lease, and overhead costs. Prepares rental or lease agreement, specifying charges and payment procedures, for use of machinery, tools, or equipment. Directs activities of workers engaged in bookkeeping, record and inventory keeping, and in checking, handling, servicing or maintaining in-house, leased, or rented machines, tools and equipment. Managers of leasing or renting establishments may be designated according to type or use of machinery, tools or equipment.
GOE: 11.11.05 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

185.167-030 MANAGER, MEAT SALES AND STORAGE (retail trade; wholesale tr.)
Coordinates activities of workers engaged in buying, processing, and selling meats and poultry and renting frozen food lockers: Prepares daily schedule and directs activities of employees. Examines products bought for resale or received for storage. Cuts, trims, bones, and cleans meats and poultry. Displays and sells different cuts of meats and poultry to customers and advises customers on quality of food, method of handling, and other factors affecting preparing, freezing, and storing food. Conducts in-service training for employees.
GOE: 11.11.05 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

185.167-034 MANAGER, MERCHANDISE (retail trade; wholesale tr.) alternate titles: director, merchandise
Formulates merchandising policies and coordinates merchandising activities in wholesale or retail establishment: Determines mark-up and mark-down percentages necessary to ensure profit, based on estimated budget, profit goals, and average rate of stock turnover. Determines amount of merchandise to be stocked and directs buyers in purchase of supplies for resale. Consults with other personnel to plan sales promotion programs.
GOE: 11.05.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

185.167-038 MANAGER, PARTS (retail trade; wholesale tr.) alternate titles: manager, stockroom
Manages retail or wholesale automotive parts establishment or department of repair shop or service station: Requisitions new stock. Verifies cash receipts and keeps sales records. Hires, trains, and discharges workers. Confirms credit references of customers by mail or telephone. May sell parts.
GOE: 11.11.05 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

185.167-042 MANAGER, PROFESSIONAL EQUIPMENT SALES-AND-SERVICE (business ser.)
Directs and coordinates activities of establishment engaged in sale of professional equipment and supplies, and providing customer services, to organizations in such fields as medicine and medical services, engineering, and education: Plans and directs sales and service programs to promote new markets, improve competitive position in area, and provide fast and efficient customer service. Confers with potential customer to ascertain equipment, supplies, and service needs. Advises customer on types of equipment to purchase, considering such factors as costs, space availability, and intended use. Directs and coordinates activities of personnel engaged in sales and service accounting and record keeping, and receiving and shipping operations. Reviews articles in trade publications to keep abreast of technological developments in types of professional equipment merchandised. Resolves customer complaints regarding equipment, supplies, and services. Workers are usually classified according to type of firm managed or type of equipment and supplies sold such as dental, hospital, school, medical, or laboratory supply house.
GOE: 11.05.04 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

185.167-046 MANAGER, RETAIL STORE (retail trade) alternate titles: store manager
Manages retail store engaged in selling specific line of merchandise, such as groceries, meat, liquor, apparel, jewelry, or furniture; related lines of merchandise, such as radios, televisions, or household appliances; or general line of merchandise, performing following duties personally or supervising employees performing duties: Plans and prepares work schedules and assigns employees to specific duties. Formulates pricing policies on merchandise according to requirements for profitability of store operations. Coordinates sales promotion activities and prepares, or directs workers preparing, merchandise displays and advertising copy. Supervises employees engaged in sales work, taking of inventories, reconciling cash with sales receipts, keeping operating records, or preparing daily record of transactions for ACCOUNTANT (profess. & kin.) 160.162-018, or performs work of subordinates, as needed. Orders merchandise or prepares requisitions to replenish merchandise on hand. Ensures compliance of employees with established security, sales, and record keeping procedures and practices. May answer customer's complaints or inquiries. May lock and secure store. May interview, hire, and train employees. May be designated according to specific line of merchandise sold, such as women's apparel or furniture; related lines of merchandise, such as camera and photographic supplies, or gifts, novelties, and souvenirs; type of business, such as mail order establishment or auto supply house; or general line of merchandise, such as sporting goods, drugs and sundries, or variety store.
GOE: 11.11.05 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 81

185.167-050 MANAGER, TEXTILE CONVERSION (business ser.; wholesale tr.)
Directs and coordinates activities of firm engaged in purchasing, finishing, and wholesaling textile fabrics, or in finishing fabrics for trade on commission basis: Purchases textile fabrics from mills or receives fabrics from apparel or other finished fabric product manufacturers. Directs and coordinates finishing operations, such as bleaching, dyeing, and printing (roller, screen, flock, or plisse techniques), preshrinking, calendering, or napping, according to customer specifications. May direct other chemical finishing treatments of fabric to develop qualities, such as water repellency, fire resistance, or mildew proofing.
GOE: 11.11.05 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

185.167-054 MANAGER, TOBACCO WAREHOUSE (wholesale tr.)
Manages tobacco warehouse: Oversees auction sale of consigned tobacco to wholesale buyers. Ascertains eligibility of each purchaser before completing

sale. Supervises workers engaged in collecting payment from buyers and paying growers for tobacco sold. Directs advertisement of firm through printed matter and subordinates who contact prospective customers.
GOE: 11.11.05 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

185.167-058 SERVICE MANAGER (automotive ser.)
Coordinates activities of workers in one or more service departments of automobile accessories sales-service establishment: Directs activities of workers, such as TIRE REPAIRER (automotive ser.) and BRAKE REPAIRER (automotive ser.). Assists sales personnel in adjusting customers' service complaints. Hires, transfers, and discharges workers. Directs activities of workers engaged in testing new equipment and recommends purchase or rejection of equipment. Determines work standards and evaluates workers' performance. May handle claims regarding defective factory work quality. May determine need and cost of automobile repair [AUTOMOBILE-REPAIR-SERVICE ESTIMATOR (automotive ser.)].
GOE: 05.10.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

185.167-062 SUPERVISOR, LIQUOR STORES AND AGENCIES (government ser.)
Directs activities of alcoholic beverage control authority in counties or other governmental units of states operating retail liquor stores: Coordinates, through subordinates, purchasing, sale, inventory control, display, tabulating of receipts, and warehousing of beverages in stores according to public demand and established policy of control authority. Visits stores to inspect facilities and procedures and evaluate condition of stock. Authorizes transfer of beverages among stores to maintain fresh, balanced stock. Recommends expansion, remodeling, or relocation of stores according to accepted merchandising principles and policy of authority. Reviews sales and inventory reports to develop more efficient procedures and to supply data on beverage consumption to legislative officials or other interested parties. May plan window displays or other merchandising techniques to stimulate sales. May direct activities of state self-service stores and be designated Supervisor, Self-Service Store (government ser.).
GOE: 11.05.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

185.167-066 VENDING-STAND SUPERVISOR (government ser.) alternate titles: operations supervisor; vending-enterprises supervisor
Coordinates activities of persons engaged in vending-stand operations of state program for rehabilitation of the blind: Observes stand operation and advises blind vendor on merchandise purchase and display, improved methods of operation, personal appearance, and sanitation. Inspects condition of stock and fixtures to ascertain adherence to regulations and to determine need for maintenance and repairs. Examines invoices and receipts to determine equity of charges and to prepare monthly profit and loss statement. Investigates and resolves problems varying from nuisance complaints to breach-of-contract. May address civic groups to promote public relations. May collect cash, invoices, receipts, and specified assessments as determined by state program requirements. May plan, locate, and arrange for installation of stands, train vendors, and negotiate contracts with building managers for stand operation [BUSINESS-ENTERPRISE OFFICER (government ser.)].
GOE: 09.04.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

185.167-070 WHOLESALER I (wholesale tr.)
Manages establishment engaged in purchasing, wholesaling, and distributing merchandise, such as furniture and home furnishings, construction materials and supplies, metals and minerals, electrical goods, drugs and drug proprietaries, groceries and foodstuffs, and professional equipment and supplies to retailers, industrial and commercial consumers, or professional personnel: Estimates stock requirements based on sales orders, inventory, projected volume of sales, and current condition of economy. Authorizes purchase of merchandise based on estimates. Directs assembly of and storing of merchandise by workers, filling of orders, and distribution to customers according to sales orders. Directs and coordinates activities of workers engaged in wholesaling merchandise and extending credit to purchasers. Advises customers concerning current and future market conditions and availability of merchandise. Workers are classified according to type of merchandise, product, or material wholesaled and distributed.
GOE: 11.05.04 STRENGTH: S GED: R5 M5 L4 SVP: 8 DLU: 77

185.167-074 MANAGER, AUTO SPECIALTY SERVICES (automotive ser.)
Manages establishment engaged in automotive specialty services, such as engine tune-up, front-end alignment, or muffler installation: Directs and coordinates, through subordinate personnel, activities of workers engaged in diagnosing and repairing automobile malfunctions. Monitors operations to ensure that services rendered conform to company policy and standards. Resolves customer complaints. Reviews operational expenses and collection reports for accuracy. Authorizes acquisition of tools, equipment, and parts. Hires, discharges, and assists in training workers. May contact advertising media to publicize services.
GOE: 11.11.04 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 86

186 FINANCE, INSURANCE, AND REAL ESTATE MANAGERS AND OFFICIALS

This group includes managerial and management related occupations concerned with banks and trust companies, credit agencies other than banks, investment companies, brokers, and dealers in securities and commodity contracts, and security and commodity exchanges; all types of insurance, and insurance agents and brokers; owners, lessors, lessees, buyers, sellers, agents, and developers of real estate.

186.117-010 BUSINESS MANAGER, COLLEGE OR UNIVERSITY (education)
Administers business affairs of college or university: Prepares operating budget draft for submission through PRESIDENT, COLLEGE OR UNIVERSITY (education) to board of trustees. Directs control of budget upon its approval by board, including collection, custody, investment, disbursement, accounting, and auditing of all college funds. Recruits, supervises, and oversees training of clerical staff. Formulates, with DIRECTOR OF STUDENT AFFAIRS (education), policies and procedures governing financial relations with students, dormitories, cafeterias, bookstores, and recreational and parking facilities. Audits financial status of student organization accounts, campus food service, housing, and bookstores. Administers financial aspects of student loans, scholarships, and student credit. Negotiates with groups, such as foundations, for university loans. Keeps financial records and prepares annual financial report. Formulates and administers policies and procedures for development and management of physical plant, including custodial care, sanitation, and fire and police protection. Negotiates with industry representatives on costs and materials for building construction. Develops policies and procedures for procurement of goods and nonpersonal services for university. Coordinates service operations, such as printing, duplicating, mail and messenger service, bindery, and machine computing and tabulating.
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

186.117-018 CUSTOMS BROKER (financial) alternate titles: customs-house broker
Prepares and compiles documents required by federal government for discharge of foreign cargo at domestic port to serve as intermediary between importers, merchant shipping companies, airlines, railroads, trucking companies, pipeline operators, and the United States Customs Service: Prepares entry papers from shipper's invoice in accordance with U.S. Customs Service regulations, and regulations of other federal agencies bearing on importation of goods, such as Environmental Protection Agency and Food And Drug Administration. Files papers with Customs Service and arranges for payment of duties. Quotes duty rates on goods to be imported, based on knowledge of federal tariffs and excise taxes. Prepares papers for shippers desiring to appeal duty charges imposed by Customs Service. Provides for storage of imported goods and for transportation of imported goods from port to final destination. May register foreign ships with U.S. Coast Guard. Must be licensed by U.S. Treasury Department or operate under corporate license granted to employer by Treasury Department.
GOE: 11.04.04 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 89

186.117-022 DEPUTY INSURANCE COMMISSIONER (government ser.)
Directs investigative, examining, and surety bonding activities of State Insurance Commission to ensure that companies and agents comply with provisions of insurance regulations and laws: Reviews insurance policies for conformance with prescribed underwriting standards or directs this work by others. Coordinates staff investigative activities concerning complaints of fraud, misrepresentation, excessive rates, financial irresponsibility, and other improprieties. Reviews financial statements of companies and agents to determine adherence to licensing requirements and state laws. Conducts examination of agents or other insurance personnel to determine qualifications for licensing. Receives and validates surety bonds from company representatives. Recommends or initiates punitive action, such as prosecution or license revocation, in cases of company or agent impropriety.
GOE: 11.10.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

186.117-030 GENERAL CLAIMS AGENT (air trans.; motor trans.; r.r. trans.; water trans.)
Directs and coordinates activities involving claims against transportation company for shortages in or damaged freight, accidental death or injury to persons or employees, and private property damages: Directs activities of workers investigating claims to ascertain validity of claims and extent of company liability. Processes freight and property claims for which company is liable and submits claims to head office for settlement, or negotiates settlement with claimant and authorizes payment. Reviews employee accident reports to determine compensation program under which accidents are covered, and doctor reports for type of injury and length of time disabled. Authorizes payment of disability compensation according to state or federal acts. Contacts medical personnel to ascertain need for extension of payments beyond specified recovery date. Negotiates with persons having valid claims against company or death or injury to effect out-of-court settlement and refers cases that cannot be settled to legal department. Represents company at industrial accident or compensation board hearings to present company position on accident liability. May testify at court hearings to present evidence on company liability from investigation documents.
GOE: 11.12.01 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

186.117-034 MANAGER, BROKERAGE OFFICE (financial) alternate titles: branch manager; office manager
Directs and coordinates activities concerned with buying or selling investment products and financial services, such as securities, insurance, and real estate, for clients of brokerage firm: Screens, selects, and hires REGISTERED

PRESENTATIVES (financial) 250.257-018 and other employees. Directs in-
ice training to improve client services and increase sales volume. Develops
implements plans to ensure compliance of workers with established pro-
ns, procedures, and practices. Establishes internal control procedures to con-
margin accounts, short sales, and options and to reduce office errors and
nt complaints. Reviews recapitulation of daily transactions to ensure accord-
with rules and regulations of government agencies, regulatory bodies, and
rities exchanges. Analyzes operations to determine areas where cost reduc-
s could be implemented or program improvements initiated. Evaluates prof-
lity of gross sales and transactions. Conducts staff meetings of personnel
iscuss changes in policy, redirection of sales emphasis to other programs,
o propose methods and procedures to increase firm's share of local market
trade volume. Explains firm's research and customer service facilities and
use of facilities can promote customer relations and sales. Prepares activity
rts for evaluation by management. May be required to have securities agent
se. May be required to have experience in certain type of brokerage office
aged, such as full-service brokerage office, discount brokerage office, or
service/discount brokerage office.
11.05.04 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

117-042 MANAGER, LAND DEVELOPMENT (real estate)
oordinates activities of land development company and negotiates with rep-
ntatives of real estate, private enterprise and industrial organizations, and
munity leaders to acquire and develop land. Supervises staff engaged in
activities as preparing appraisal reports on available land, preparing fea-
ty studies, showing availability and quality of water resources, mineral de-
s, electric power, and labor supply. Prepares or directs preparation of sta-
al abstracts to reveal trends in tax rates in given communities, and propor-
of total work force having specified skills. Plans, oversees, and directs ac-
es of field staff engaged in sampling mineral deposits, surveying land
daries, and testing water supply to determine optimum usage of land. Ne-
tes with community, business, and public utility representatives to elimi-
obstacles to land purchase, development, sale, or lease. Negotiates mort-
loans. Directs collection and auditing of funds from sale or lease of prop-
May perform duties of REAL-ESTATE AGENT (profess. & kin.)
17-058. May cooperate with representatives of public utilities, universities,
other groups to coordinate research activities. May work for railroad and
alize in industrial development and be designated Manager, Industrial De-
ment (r.r. trans.). May work for government and be designated Property
ger (government ser.).
11.05.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

17-046 MANAGER, LEASING (petrol. & gas) alternate titles: general manager, land department; land-and-leases supervisor; land department head; lease agent; leases-and-land supervisor; manager, land department; superintendent, land department
ects land and leasing department of petroleum company to secure leases,
ns, rights-of-way, and special agreements covering land and mineral rights
illing wells and producing gas and oil. Studies leases bought, prices paid,
other negotiations of competing companies in specified areas and deter-
expenditure necessary to obtain leases and other contracts in those areas.
mines and specifies date of termination of lease rentals. Negotiates with
rs or other individuals to sell interests in leases owned. Executes general
es established by company officials. May make final decisions on and
greements and contracts for purchase, sale and acquisition of land leases,
al and royalty rights. May be designated according to area of operations
nager, Divisional Leasing (petrol. & gas).
11.12.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

17-054 PRESIDENT, FINANCIAL INSTITUTION (financial)
ns, develops, and directs financial policies and practices of bank, savings
commercial bank, trust company, mortgage company, credit union, or
ny dealing in consumer credit, such as finance company, to ensure that
ial objectives, goals, and institutional growth are met and in accordance
olicies of Board of Directors or corporate charter and government regula-
Plans and develops investment, loan, interest, and reserve policies to en-
ptimum monetary returns in accordance with availability of investment
government restrictions, and sound financial practices. Coordinates com-
ation and reporting activities between divisions, departments, and branch
to ensure availability of data required for efficient daily operations. Del-
to subordinate corporate officers authority for administering activities
perations under their control. Reviews reports and financial statements to
ine policy changes due to changes in economic conditions. May serve
k representative in professional, business, and community organizations
mote bank services. May plan budget and monitor financial activities,
omputer. May serve on Board of Directors. May be designated according
of financial institution as President, Commercial Bank (financial); Presi-
Credit Union (financial); President, Finance Company (financial); Presi-
Mortgage Company (financial); President, Savings Bank (financial); Presi-
rust Company (financial).
11.05.01 STRENGTH: S GED: R6 M5 L5 SVP: 9 DLU: 89

7-058 REAL-ESTATE AGENT (profess. & kin.) alternate titles: land agent
rdinates activities of real-estate department of company and negotiates
tion and disposition of properties in most beneficial manner. Supervises staff engaged in preparing lease agreements, recording rental receipts, and performing other activities necessary to efficient management of company properties, or in performing routine research on zoning ordinances and condemnation considerations. Directs appraiser to inspect properties and land under consideration for acquisition, and recommends acquisition, lease, disposition, improvement, or other action consistent with best interest of company. Authorizes or requests authorization for maintenance of company properties not under control of operating departments, such as dwellings, hotels, or commissaries. Evaluates and promotes industrial-development potential of company properties. Negotiates contracts with sellers of land and renters of properties.
GOE: 11.12.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

186.117-062 RENTAL MANAGER, PUBLIC EVENTS FACILITIES (business ser.)

Negotiates contracts for leasing arenas, auditoriums, stadiums, or other public events facilities. Solicits new business and renews established contracts to promote rental of facilities. Maintains schedule of rentals to determine availability of facilities for bookings. Oversees operation and maintenance of facilities. Notifies fire and police departments of scheduled use of buildings to provide protection. Studies reports to ascertain time lessee used facilities and if damage was incurred to facilities or contents. Submits bills and receives and accounts for monies paid for rentals.
GOE: 11.12.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

186.117-066 RISK AND INSURANCE MANAGER (any industry) alternate titles: insurance and risk manager

Plans, directs, and coordinates risk and insurance programs of establishment to control risks and losses: Analyzes and classifies risks as to frequency and potential severity, and measures financial impact of risk on company. Selects appropriate technique to minimize loss, such as avoidance (reducing chance of loss to zero), loss prevention and reduction (reducing frequency and severity of loss), retention (including self-insurance and planned noninsurance), grouping of exposure units (to increase predictability of loss) and transfer (placement of property, activity, or risk with other establishment or insurers). Directs insurance negotiations, selects insurance brokers and carriers, and places insurance. Appoints claims and self-insurance administrators, and allocates program costs. Prepares operational and risk reports for management analysis. Manages insurance programs, such as fidelity, surety, liability, property, group life, medical, pension plans, and workers' compensation. Prepares operational and risk reports for management analysis. May direct loss prevention and safety programs. May select and direct activities of safety, engineering, and loss prevention experts. May negotiate with unions for employee benefits.
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

186.117-070 TREASURER, FINANCIAL INSTITUTION (financial) alternate titles: cashier

Directs and coordinates programs, transactions, and security measures of financial institution: Examines institution operations to evaluate efficiency. Plans and implements new operating procedures to improve efficiency and reduce costs. Directs receipt and disbursement of funds and acquisition and sale of other assets. Approves agreements affecting capital transactions. Directs safekeeping, control, and accounting of assets and securities. Ensures that institution reserves meet legal requirements. Analyzes financial and operating statements of institution, and reports and makes recommendations to management or board of directors in regard to financial policies and programs. May participate as member of committee deciding on extending lines of credit to commercial enterprises and other organizations. May be designated according to type of financial institution, such as Treasurer, Savings Bank (financial).
GOE: 11.06.05 STRENGTH: S GED: R5 M5 L5 SVP: 9 DLU: 77

186.117-074 TRUST OFFICER (financial) alternate titles: trust administrator

Directs and coordinates activities relative to creating and administering personal, corporate, probate, and court-ordered guardianship trusts in accordance with terms creating trust, will, or court order: Directs drafting of, drafts, or consults with client's attorney who drafts, legal documents specifying details, conditions, and duration of trust. Locates and places funds, securities, and other assets in trust account. Interviews trust beneficiaries of court-ordered guardianship trusts in order to locate probable sources of assets. Negotiates with public agencies, such as Social Security Administration and Worker's Compensation Commission, in effort to accumulate all assets into trust. Directs collection of earnings, dividends, or sale of assets and placement of proceeds in trust account. Directs realization of assets, liquidation of liabilities, and payment of debts for trusts. Directs disbursement of funds according to conditions of trust or needs of court ward or beneficiary. Ensures that excess or surplus funds are invested according to terms of trust and wishes of trust client. May specialize in promoting trust services and establishing new trust accounts. May prepare federal and state tax returns for trusts. May be designated according to type of trust as Corporate Trust Officer (financial); Personal Trust Officer (financial).
GOE: 11.06.05 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

186.117-078 VICE PRESIDENT, FINANCIAL INSTITUTION (financial)

Directs and coordinates, through subordinate managerial personnel, activities of department, region, administrative division, or specific function of financial institution, such as lending, trusts, mortgages, investments, acting under authority and responsibility delegated by corporate executive officer. Coordinates ac-

tivities of assigned program, such as sales, operations, or electronic financial services, determines methods and procedures for carrying out program, and assists in interpreting policies and practices. Directs or conducts management studies, prepares work load and budget estimates for specified or assigned operations, analyzes operational reports, and submits activity reports. Develops and recommends plans for expansion of programs, operations, and financial activities. May solicit new business or participate in community or service organizations. May authorize loans of specified types and amounts when permitted by institution regulations. May be designated according to type of financial institution as Vice President, Commercial Bank (financial); or according to activity as Vice President, Lending (financial).
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 89

186.117-082 FOREIGN-EXCHANGE DEALER (financial) alternate titles: foreign-exchange trader
Maintains bank's balances on deposit in foreign banks to ensure foreign exchange position, and negotiates prices at which such exchanges shall be purchased and sold, based on demand, supply, and stability of currency: Refers to international bank market rate to determine foreign exchange rates. Establishes local rates based upon international bank rates, size of transaction involved, stability of market, and bank's balances available to fund customer requirements. Negotiates purchase and sale of foreign exchange drafts on foreign exchange market and calculates U.S. dollar equivalents, using calculator or computer. Adjusts deposit balances with foreign banks. May direct foreign exchange personnel in transactions relating to international monetary business.
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 89

186.117-086 MANAGER, EXCHANGE FLOOR (financial) alternate titles: manager, floor operations; manager, floor services
Directs floor operations of brokerage firm engaged in buying and selling securities at exchange: Monitors order flow and transactions that brokerage firm executes on floor of exchange. Reviews reports of securities transactions and price lists, using computer, to analyze market conditions. Informs staff of changes affecting firm or exchange. Calculates profit made by firm and estimates business volume lost to competition. Develops plan to increase firm's market share of business. Negotiates business contracts with exchange officials, and represents firm by membership in various exchange committees. Interviews, selects, and hires employees, such as FLOOR BROKER (financial) 162.167-034 and clerical workers. Develops and implements plans to ensure compliance of workers with established programs and procedures. Conducts staff meetings to discuss changes in policy or to propose methods and procedures which could increase profit and trade volume. Monitors employee attendance and takes disciplinary action when regulations are violated. Evaluates employee job performance and promotes or terminates personnel. May place orders with independent trader when additional help is needed to fill orders for brokerage firm. May buy and sell securities on floor of exchange [FLOOR BROKER (financial)]. May specialize according to type of securities traded at exchange and be designated Manager, Commodity Exchange Floor (financial); Manager, Options Exchange Floor (financial); Manager, Stock Exchange Floor (financial).
GOE: 11.05.04 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 90

186.137-014 OPERATIONS OFFICER (financial)
Supervises and coordinates activities of personnel involved in performing internal operations in department or branch office of financial institution: Prepares work schedules and assigns duties to operations personnel to ensure efficient operation of department or branch. Audits accounts, records of proof, and certifications to ensure compliance of workers with established standard procedures and practices. Compiles required and special reports on operating functions of department or branch. Interviews, selects, and hires new employees. Directs employee training to improve efficiency and ensure conformance with standard procedures and practices. Verifies workers' count of incoming cash shipments. Controls supply of money on hand to meet branch's daily needs and legal requirements. Conducts staff meetings of operations personnel, or confers with subordinate personnel to discuss operational problems or explain procedural changes or practices. May be designated according to type of financial operations supervised as Operations Officer, Branch Office (financial); Operations Officer, Trust Department (financial).
GOE: 11.06.01 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 89

186.167-010 ESTATE PLANNER (insurance)
Reviews assets and liabilities of estate to determine that insurance is adequate for financial protection of estate: Studies legal instruments, such as wills, trusts, business agreements, life insurance policies, and government benefits to estimate value and expenses of estate. Computes expenses, taxes, and debts to determine value of adjusted gross estate, using knowledge of accounting and tax laws. Prepares and discusses insurance program with client that will provide maximum financial security for family and protect investments. Suggests purchase of additional or new life insurance when analysis of estate indicates need for meeting cash demands at death. Discusses legal instruments with family attorney if study indicates need for change. May be required to hold state license.
GOE: 08.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

186.167-018 MANAGER, APARTMENT HOUSE (real estate)
Manages apartment house complex or development for owners or property management firm: Shows prospective tenants apartments and explains occupancy terms. Informs prospective tenants of availability of nearby schools, shopping malls, recreational facilities, and public transportation. Rents or leases apartments, collects security deposit as required, and completes lease form outlining conditions and terms of occupancy when required. Collects rents due and issues receipts. Investigates tenant complaints concerning malfunctions of utilities or furnished household appliances or goods, and inspects vacated apartments to determine need for repairs or maintenance. Directs and coordinates activities of maintenance staff engaged in repairing plumbing or electrical malfunctions, painting apartments or buildings, and performing landscaping or gardening work, or arranges for outside personnel to perform repairs. Resolves tenant complaints concerning other tenants or visitors. May arrange for other services, such as trash collection, extermination, or carpet cleaning. May clean public areas of building and make minor repairs to equipment or appliances.
GOE: 11.11.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 81

186.167-030 MANAGER, HOUSING PROJECT (profess. & kin.)
Directs operations of housing project to provide low-income or military families, welfare recipients, or other eligible individuals with furnished or unfurnished housing in single or multiunit dwellings or house trailers: Develops and implements plans for administration of housing project and procedures for making housing assignments. Reviews occupancy reports to ensure that applications, selection of tenants and assignment of dwelling units are in accordance with rules and regulations. Conducts surveys of local rental rates and participates in setting of rental rates according to occupants' income and accommodation requirements. Prepares operational budget requests and receives accounts for and disburses funds. Conducts analyses of management and maintenance costs to determine areas where cost reductions can be effected. Plans long range schedule of major repairs on units, such as reroofing or painting exterior of dwellings. Studies housing demands occupancy and turnover rates and accommodation requirements of applicants to recommend policy and physical requirement changes. Promotes harmonious relations among tenants, housing project personnel, and persons of the community. Directs work activities of office and clerical staff in processing applications, collecting of rents and accounting for monies collected, and assigns building and grounds maintenance personnel to specific duties. Requisitions furnishings and furniture for housing units. May direct activities of other management personnel in housing project having commercial shops, concessions, theater, library, and recreational facilities. May refer applicants to private housing if all available units are occupied or if accommodation requirements are inadequate.
GOE: 11.05.03 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

186.167-034 MANAGER, INSURANCE OFFICE (insurance) alternate titles: district agent
Directs and coordinates activities of branch or district office of insurance company, agency or insurance brokerage firm: Hires and trains workers in performing activities, such as selling insurance, processing insurance claims, or underwriting. Reviews activity reports to ensure that personnel have achieved sales quotas, processed claims promptly, or credited collections to policyholders' accounts. Confers with company officials to plan and develop methods and procedures to increase sales, lower costs, and obtain greater efficiency. Interprets, implements, and enforces company policies. Prepares and submits activity reports. May reconcile earned commissions with commission advances on sales personnel. May be designated according to type of office managed as District Branch Manager (insurance); District Claims Manager (insurance); District Sales Manager (insurance); Manager, Farm Underwriters (insurance); Manager, Field Underwriters (insurance); Manager, Insurance Agency (insurance).
GOE: 11.11.04 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 78

186.167-038 MANAGER, LAND LEASES-AND-RENTALS (petrol. & gas)
Directs and coordinates recordkeeping activities concerning land leases, agreements, and contracts relative to petroleum company rights for drilling wells on public or private lands and producing gas and oil: Directs activities of workers engaged in keeping current files and records on terms, conditions, and expiration dates of land documents. Prepares reports on expiration dates, disposition of, and for renegotiation of existing contracts, leases, and agreements for use by management or other land department personnel. Coordinates activities of lease and rental section with activities of other sections of land department to ensure that files and records are current and that company is in compliance with terms and conditions set forth in documents. Requests title searches, procurement of deeds and affidavits, or other substantiating data to ensure legality of documents. May authorize payment of royalties, bonuses, or other compensation as provided for in terms and conditions of documents. May be designated according to activity directed as Manager, Contracts-And-Titles (petrol. & gas); Manager, Titles-And-Land-Records (petrol. & gas).
GOE: 11.05.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

186.167-042 MANAGER, MARKET (retail trade; wholesale tr.)
Directs and coordinates activities of municipal, regional, or state fruit, vegetable, or meat market or exchange: Negotiates contracts between wholesalers and market authority or rents space to food buyers and sellers. Directs through subordinate supervisory personnel collection of fees or monies due market, maintenance and cleaning of buildings and grounds, and enforcement of market sanitation and security rules and regulations. Keeps records of current sales prices of food items and total sales volume. May endeavor to resolve differences arising between buyers and sellers. May prepare market activity reports for management or board.
GOE: 11.11.05 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

-046 MANAGER, PROPERTY (real estate)
ges commercial, industrial, or residential real estate properties for cli-
iscusses with client terms and conditions for providing management
, and drafts agreement stipulating extent and scope of management re-
ilities, services to be performed, and costs for services. Prepares lease
l agreements for lessees and collects specified rents and impounds. Di-
okkeeping functions, or credits client account for receipts and debits ac-
or disbursements, such as mortgage, taxes, and insurance premium pay-
management sevices costs, and upkeep and maintenance costs. Arranges
rations to, or maintenance, upkeep, or reconditioning of property as
d in management services or lessee's agreement. Employs, or contracts
ices of, security, maintenance, and groundskeeping personnel and on-
nagement personnel if required. Purchases supplies and equipment for
leased properties. Directs preparation of financial statements and reports
is of properties, such as occupancy rates and dates of expiration of
Directs issuance of check for monies due client. May advise client rel-
financing, purchasing, or selling property. Usually required to have real
roker's license and be certified in property management. May prepare
inventory of building contents and forward listing to owner for review.
ntact utility companies to arrange for transfer of service for tenants.
sist with eviction of tenants in compliance with court order and direc-
om LAWYER (profess. & kin.) 110.107-010 and owner.
1.11.04 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 89

-054 RESERVE OFFICER (financial; insurance) alternate titles: collateral placement officer; money position officer; portfolio administrator
ts purchase, sale, and redemption of bonds and securities, and place-
collateral funds in safekeeping accounts of correspondent or reserve
o maintain institution reserve position mandated by regulatory bodies.
s deposit agreements with correspondent banks or designated reserve
nd directs placement of funds to fulfill agreements. Reviews financial
nts to determine reserve needed, and adjusts reserve to obtain specified
reserves to liabilities. Directs purchase and sale of government bonds
er securities, redemption of bonds, and disbursement of funds to branch
correspondent banks, and reserve banks to ensure that funds are kept
specified by reserve regulations and deposit agreements. Prepares re-
reserve position for management.
1.06.03 STRENGTH: S GED: R5 M5 L4 SVP: 9 DLU: 77

-062 CONDOMINIUM MANAGER (real estate)
ges condominium complex in accordance with homeowners' property
ment contract. Confers with representatives of homeowners' association
d of directors to review financial status of association and to determine
ment priorities. Attends monthly board meetings, records minutes, and
s copies for distribution to board members. Arranges for and oversees
s of contract service representatives, such as exterminators, trash collec-
or repair contractors, utility service repairers, and swimming pool man-
t personnel. Investigates tenant disturbances, violations, or complaints,
olves problems in accordance with regulations established by board of
s. Directs collection of monthly assessments from residents and payment
red operating expenses. Directs maintenance staff in routine repair and
ance of buildings and grounds of complex. Prepares and maintains
of work assignments, and prepares performance evaluations. Prepares an-
dget and activity reports and submits reports to association members.
cruit, hire, train, and supervise maintenance, janitorial, guard, and
keeping staff who perform routine repairs, maintain buildings and
, and patrol area to maintain secure environment of complex. May
n contact with insurance carrier, fire protection and police departments,
er agencies having jurisdiction over property to ensure that association
lying with codes and regulations of each agency. May issue and main-
ords of special permits, such as vehicle and pet registration, required
lominium association.
1.11.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 89

-066 MANAGER, REAL-ESTATE FIRM (real estate)
ts and coordinates activities of sales staff for real estate firm. Screens
es sales agents. Conducts training sessions to present and discuss sales
ies, ethics, and methods of maintaining sales quotas. Accompanies sales
and clients to observe sales methods utilized, and counsels agents re-
matters, such as professionalism, financing, and sales closings. Confers
ents and clients to resolve problems, such as adjusting sales price, re-
property, or accepting closing costs. Sells or rents property for clients
AGENT, REAL ESTATE (real estate) 250.357-018]. Manages residen-
commercial properties for clients [MANAGER, PROPERTY (real es-
6.167-046]. May own real estate firm or be employed by nationwide
e. May confer with legal authority to determine if transactions are han-
accordance with state laws and with regulations governing real estate
. May assist in negotiating development contracts with land developers,
ors, and architects. May review closing statements and attend closing
ions to represent real estate establishment.
1.11.04 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 89

-070 ASSISTANT BRANCH MANAGER, FINANCIAL INSTITUTION (financial)
ts and coordinates activities of workers engaged in providing financial
to customers, and assists in cash management activities: Trains new employees, prepares work schedules, and monitors work performance. Examines documents prepared by subordinates, such as savings bond applications and safe deposit vault entry and exit records, to ensure compliance with establishment policies and procedures. Monitors branch office operations to ensure that security procedures are being followed. Evaluates establishment procedures and recommends changes to MANAGER, FINANCIAL INSTITUTION (financial) 186.167-086. Talks to customers to resolve account-related problems and to ensure positive public relations. Explains services to potential personal and business account customers to generate additional business for establishment. Assists workers to balance daily transactions, using calculator and computer terminal. Manages office in absence of MANAGER, FINANCIAL INSTITUTION (financial). May remove, count, and record cash from automated teller machine. May examine, evaluate, and process loan applications. May prepare, type, and maintain records of financial transactions.
GOE: 11.11.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

186.167-074 CLOSER (real estate)
Coordinates closing transactions in real estate company: Receives and deposits escrow monies in established accounts and disburses funds from each account. Reviews closing documents to determine accuracy of information and need for additional documents. Contacts courthouse personnel, buyer and seller, and other real estate personnel to obtain additional information. Confers with legal counsel regarding legal aspects of closing transactions. Calculates prorated balances on mortgages, taxes, and fire insurance premiums, as of closing date, and records balances on closing statement form to provide both parties with accurate and complete financial and legal information regarding property ownership transfer transaction. Reviews contract between buyer and seller to ensure seller can convey acceptable property title to prospective buyer. Prepares closing statement for purchase of property, using figures gathered in previous transactions and listing financial settlement between buyer and seller. Compiles figures to determine closing cost of final transaction, including loan, title, appraisal, and other fees included in sale of property. Schedules appointment to complete closing process and to answer any questions regarding procedures. Presides over closing meeting, reviews and explains contract documents and terms of transaction to buyer and seller, and obtains and notarizes signatures that ensure acceptance of agreement. Collects down payment from buyer for deposit in trust fund account. Disburses funds, based on final statement, to pay seller's debts against property, such as liens, taxes, and assessments. Reviews documents to determine that they have been executed according to regulations and are ready to be recorded. Disburses completed documents to concerned parties to effect transfer of property ownership. May prepare and type legal documents, contracts, warranty deeds, and deeds of trust. May notify contract inspection or pest control businesses to perform needed service. May prepare work assignments and complete closing work schedules to maintain efficient work flow. May compile statistical reports and keep daily log on closing activities.
GOE: 07.01.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 89

186.167-078 COMMERCIAL LOAN COLLECTION OFFICER (financial) alternate titles: special loan officer
Coordinates activities to collect delinquent commercial loans: Reviews files of commercial loans in default to determine collateral held by bank. Writes letter to customer to demand payment of loan balance. Calls or visits customer to determine if repayment plan can be established. Computes repayment schedule, using calculator. Determines if status of customer's financial position prevents repayment of loan and justifies re-classifying loan as non-revenue producing. Initiates collateral liquidation when customer does not repay loan. Petitions court to transfer title and deeds of collateral to bank. Coordinates maintenance and repairs to property. Coordinates activities to maintain income flow related to seized assets, such as notifying renters to mail payments to financial institution. Calls real estate broker to initiate sale of real estate. Calls auctioneer or liquidation specialist to sell specified property, such as machines, equipment, and inventory at public auction. Specifies changes to bank records on value of loan. May testify at legal proceedings.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

186.167-082 FACTOR (financial)
Factors (purchases at discount) accounts receivable from businesses needing operating capital: Directs collection of facts about prospective client's business, such as credit rating of customers, evaluation of past losses, terms of sales, due dates, average amount of invoices, and expected volume and turnover of accounts receivable. Evaluates data collected to determine type of factoring plan to propose and percentage of net face value of accounts to advance which will yield favorable profit margin and alleviate client's cash shortage. Determines charge from fee schedule. Explains factoring agreement to client. Prepares and signs contract specifying terms of agreement and rights and obligations of both parties. May provide clients with other business services, such as credit and collection services, accounts receivable bookkeeping, and management consulting, on contract or fee basis. May specialize in factoring agreements in one or more industries.
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 89

186.167-086 MANAGER, FINANCIAL INSTITUTION (financial)
Manages branch or office of financial institutions, such as commercial bank, credit union, finance company, mortgage company, savings bank, or trust company: Directs and coordinates activities to implement institution policies, procedures, and practices concerning granting or extending lines of credit, commer-

cial loans, real estate loans, and consumer credit loans. Directs, through subordinate supervisors, activities of workers engaged in implementing establishment services and performing such functions as collecting delinquent accounts, authorizing loans, or opening savings account. Establishes procedures for custody and control of assets, records, loan collateral, and securities to ensure safekeeping. Contacts customers and business, community, and civic organizations to promote goodwill and generate new business. May prepare financial and regulatory reports required by law, regulations, and board of directors. May examine, evaluate, and process loan applications. May recommend securities to board or corporate officers for institution investment. May talk to customers to resolve account problems. May interview and hire workers. May evaluate data pertaining to costs to plan budget. May plan and develop methods and procedures for carrying out activities of establishment. May be designated according to type of financial institution managed, as Manager, Branch Bank (financial); Manager, Commercial Bank (financial); Manager, Credit Union (financial); Manager, Finance Company (financial); Manager, Mortgage Company (financial); Manager, Savings Bank (financial); Manager, Trust Company (financial).
GOE: 11.11.04 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 88

186.167-090 MANAGER, TITLE SEARCH (real estate) alternate titles: abstract manager; chief of production

Directs and coordinates activities of persons involved in searching, examining, and recording documents to determine status of property titles and participates in real estate closing procedures: Interviews, screens, hires, trains, promotes, and terminates title department personnel to ensure adequate and efficient operation. Evaluates performance of employees for compliance with establishment policies and procedures, prepares performance appraisals, and makes recommendations concerning promotions, separations, or shifting of staff to enhance and provide more efficient environment. Conducts in-service training operations to advise employees of changes or additions to company policies and to introduce new methods implemented to ensure more efficient operation. Confers with employees and assists in solving problems affecting job performance and establishment policies and procedures. Directs preparation of work assignments and work schedules to establish priorities and to ensure completion of assignments in timely manner. Confers with other managers and supervisors to establish new policies and procedures. Oversees preparation of timesheets and reviews data sent to payroll department. Confers with supervisors and other office personnel on status of abstract orders and discusses inconsistencies and discrepancies affecting production or quality of final documents. Receives and reviews data collected by abstractors and title reports prepared for clarity, completeness, accuracy, and conformance to established procedures. Confers with legal counsel to discuss defects in title, such as outstanding liens or judgments, or to explain delays in title search. May coordinate closing activities and review closing documents to determine accuracy of information and need for additional documents. May perform difficult and involved title searches. May attend closing meeting to oversee signing of documents and disbursement of documents and monies held in escrow. May give and receive information related to title searching to other persons involved in real estate transaction. May prepare or direct preparation of periodic reports and complete purchase orders for equipment and supplies.
GOE: 11.11.04 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 89

186.267-010 BONDING AGENT (business ser.) alternate titles: bail bonding agent

Investigates arrested person to determine bondability: Interviews bond applicant to ascertain character and financial status. Furnishes bond for prescribed fee upon determining intention of accused to appear in court. Posts and signs bond with court clerk to obtain release of client. Forfeits amount of bond if client fails to appear for trial.
GOE: 07.04.01 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

186.267-018 LOAN OFFICER (financial; insurance)

Interviews applicants, and examines, evaluates, and authorizes or recommends approval of customer applications for lines or extension of lines of credit, commercial loans, real estate loans, consumer credit loans, or credit card accounts: Interviews applicant and requests specified information for loan application. Analyzes applicant financial status, credit, and property evaluation to determine feasibility of granting loan or submits application to CREDIT ANALYST (financial) 160.267-022 for verification and recommendation. Corresponds with or interviews applicant or creditors to resolve questions regarding application information. Approves loan within specified limits or refers loan to loan committee for approval. Ensures loan agreements are complete and accurate according to policy. May confer with UNDERWRITER, MORTGAGE LOAN (financial) 186.267-026 to aid in resolving mortgage application problems. May supervise loan personnel. May analyze potential loan markets to develop prospects for loans. May solicit and negotiate conventional or government secured loans on commission basis and be known as Mortgage Loan Originator (financial). May specialize by type of lending activity and be known as Commercial Account Officer (financial); International Banking Officer (financial); Mortgage-Loan Officer (financial; insurance).
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 89

186.267-022 LOAN REVIEW ANALYST (financial)

Evaluates quality of commercial loans and assigns risk rating: Selects loans to evaluate for credit risk according to factors, such as geographical location, and type and amount of loan. Records data on work sheet, such as purpose of loan, balance, collateral, and repayment terms. Verifies value of collateral by calling appraisers and auction houses for current value of machinery and equipment. Calls real estate appraiser for new real estate appraisal. Evaluates information to determine whether lending officers have stayed within guidelines of lending authority, if loan is in compliance with banking regulations, and if required documents have been obtained. Identifies problem loans and describes deficiencies. Assigns risk rating indicating borrower's financial strength and probability of loan repayment. Writes summary of analysis and reasons for assigning adverse risk rating. May act as senior analyst and coordinate data collection and evaluations of credit quality of commercial loans, and present loan review information and report to management.
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

186.267-026 UNDERWRITER, MORTGAGE LOAN (financial)

Approves or denies mortgage loans, following mortgage standards: Reviews and evaluates information on mortgage loan documents to determine if buyer, property, and loan conditions meet establishment and government standards. Evaluates acceptability of loan to corporations that buy real estate loans on secondary mortgage markets, where existing mortgages are bought and sold by investors. Approves or rejects loan application, or requests additional information. Records loan rejection specifying investor and institution guidelines and basis for declining application, such as insufficient cash reserves. Assembles documents in loan file, including acceptance or denial, and returns file to originating mortgage loan office. May be authorized by federal agency to certify that mortgage loan applicant and property qualify for mortgage insurance endorsement from federal government and be designated Underwriter, Direct Endorsement (financial).
GOE: 11.06.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 89

187 SERVICE INDUSTRY MANAGERS AND OFFICIALS

This group includes managerial occupations concerned with hotels and other lodging places; establishments providing personal, business, repair, and amusement services; medical, legal, engineering, and other professional services; nonprofit membership organizations, and other miscellaneous services.

187.117-010 ADMINISTRATOR, HEALTH CARE FACILITY (medical ser.)

Directs administration of hospital, nursing home, or other health care facility within authority of governing board: Administers fiscal operations, such as budget planning, accounting, and establishing rates for health care services. Directs hiring and training of personnel. Negotiates for improvement of and additions to buildings and equipment. Directs and coordinates activities of medical, nursing, and administrative staffs and services. Develops policies and procedures for various establishment activities. May represent establishment at community meetings and promote programs through various news media. May develop or expand programs or services for scientific research, preventive medicine, medical and vocational rehabilitation, and community health and welfare promotion. May be designated according to type of health care facility as Hospital Administrator (medical ser.) or Nursing Home Administrator (medical ser.).
GOE: 11.07.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 89

187.117-018 DIRECTOR, INSTITUTION (any industry) alternate titles: superintendent, institution

Directs administration of institution, such as prison or youth correctional facility: Coordinates educational, security, recreational, and rehabilitation programs. Directs operation and maintenance of facilities, such as laundry, cafeteria, buildings, and grounds. Recommends parole or discharge of persons under jurisdiction of institution. Directs recruitment and training of staff. Confers with staff to formulate and institute policies and regulations. Compiles and analyzes expenditures and projected costs, and prepares reports for officials. Prepares budget and monitors expenditures. May be designated according to type of institution, such as Director, School For Blind (education); Director, Youth Correctional Facility (government ser.). May work in federal or state prison and be designated Warden (government ser.).
GOE: 11.07.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 80

187.117-022 DISTRICT ADVISER (nonprofit org.) alternate titles: district director

Administers voluntary youth serving organization program in geographic area within region: Confers with individuals, groups, and committees to implement and extend organization's program and service. Interprets organization program, policies, and practices to community. Advises and works with volunteers to ensure quality of group program and effective use of resources. Responsible for recruitment, training, guiding, and providing incentive to volunteer leaders and groups. Compiles records. Confers with finance committee to develop financial goals and methods of raising funds. Prepares promotional material. May supervise staff assigned to area. May represent organization in community or interagency activities. May carry camping responsibility. May be employed by specific agency, such as Boy Scouts of America and be designated District Scout Executive (nonprofit org.).
GOE: 11.07.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

187.117-026 EXECUTIVE DIRECTOR, SHELTERED WORKSHOP (nonprofit org.)

Directs and coordinates sheltered workshop activities of nonprofit organization to train or improve vocational skills of handicapped individuals for gainful

oyment through productive work: Reviews evaluation made on individual certain type of work recommended and limitations due to specific handi- Assigns individual to specific tasks, such as cleaning, sorting, assembling, pairing products or components, and demonstrates methods and procedures erforming work. Observes worker to ensure that work is performed accord- o prescribed methods and meets established standards. Explains and nonstrates tasks to resolve work related problems or difficulties. Assigns dual to simpler tasks when worker cannot perform assigned duties. Evalu- ndividual's work performance and makes reassignments to different tasks n shop to improve vocational skills. Endeavors to place individual in gain- nployment after acquisition of marketable skills. May train handicapped duals under contract with state agency. May pay workers under contract icense of state agency or by piecework according to contract. May solicit trial establishment for subcontract work on products or components and signated Executive Director, Contract Shop (nonprofit org.).
11.07.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 80

17-030 EXECUTIVE VICE PRESIDENT, CHAMBER OF COMMERCE (nonprofit org.) alternate titles: manager, chamber of commerce

ects activities of chamber of commerce to promote business, industrial ob development, and civic improvements in community: Administers pro- s of departments and committees which perform such functions as provid- embers economic and marketing information, promoting economic growth tability in community, and counseling business organizations and industry oblems affecting local economy. Coordinates work with that of other com- y agencies to provide public services. Writes and gives speeches to gov- ent, and business organizations to create greater understanding between unity, government, and business organizations. Prepares and submits an- budget to elected official for approval. Studies governmental legislation, on, and other fiscal matters to determine effect on community interests, akes recommendations based on organizational policy.
11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 78

17-034 GENERAL MANAGER, ROAD PRODUCTION (amuse. & rec.)

ects and coordinates activities concerned with setting up facility for per- nces of circus, ice skating show, rodeo, or similar touring road show: layout of performance and backstage areas to conform with specification dering such factors, as type and space of facility. Negotiates with local g agent to arrange personal space for entertainers and animals at each fa- used on tour. Coordinates activities of various departments to ensure ar- ments are made for providing water and feed for animals and disposal of h and garbage, and to ensure that work crew has equipment and other ies prepared for each performance. May count daily receipts and verify nt against number of tickets sold. May be designated according to type w as Superintendent, Circus (amuse. & rec.).
11.11.04 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

17-038 MANAGER, HOTEL OR MOTEL (hotel & rest.) alternate titles: manager, general; manager, motor hotel; manager, motor inn; manager, resident

nages hotel or motel to ensure efficient and profitable operation: Estab- standards for personnel administration and performance, service to pa- room rates, advertising, publicity, credit, food selection and service, and of patronage to be solicited. Plans dining room, bar, and banquet oper- Allocates funds, authorizes expenditures, and assists in planning budgets epartments. Interviews, hires, and evaluates personnel. Answers patrons' aints and resolves problems. Delegates authority and assigns responsibil- o department heads. Inspects guests' rooms, public access areas, and out- rounds for cleanliness and appearance. Processes reservations and adjusts ' complaints when working in small motels or hotels.
11.11.01 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 81

17-042 MANAGER, RECREATION ESTABLISHMENT (amuse. & rec.)

nages recreation establishment, such as dancehall, sports arena, or audito- to provide entertainment to public: Negotiates with promoters to contract hedule entertainment. Compiles record of future engagements. Supervises l, service, and other employees. Hires and discharges workers. Complies tate and local fire and liquor regulations governing operation of establish- May order supplies. May oversee workers engaged in keeping premises ablishment clean and in good repair. May be designated according to type reational facility directed as Manager, Dance Floor (amuse. & rec.).
11.11.02 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

17-046 PROGRAM DIRECTOR, GROUP WORK (profess. & kin.)

ns, organizes, and directs activity program of group work agency or de- ent, or scouting organization: Coordinates activities of program commit- nd other groups to plan procedures. Studies and analyzes member and unity needs for basis of program development. Directs selection and train- staff and volunteer workers. Assigns work and evaluates performance of members and recommends indicated actions. Assists staff through individ- d group conferences in analysis of specific programs, understanding of m development, and increasing use of individual skills. Interprets agency m and services to individuals or groups in community. May be des- d according to agency or program directed as Activities Director, Scouting (nonprofit org.); Director, Teen Post (profess. & kin.); Program Director, Scouting (nonprofit org.).
GOE: 11.07.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

187.117-050 PUBLIC HEALTH SERVICE OFFICER (government ser.)

Administers public-health program of county or city: Inspects public facilities for health hazards or directs inspection by others. Negotiates with school, state, federal, or other authorities and with community groups to formulate health standards and legislation affecting jurisdiction. Participates in establishing five clinics, cancer detection centers, and other programs to improve public health. Develops and coordinates public relations campaigns to promote programs and services and participates in radio and television discussions, public meetings, and other activities. Conducts examinations of hospitals, indigent care centers, and other institutions under control of municipality to ensure conformance to accepted standards. Prohibits sale of unsafe milk and other food and dairy products. May impose quarantines on area, animals, or persons with contagious disease. May order closing of establishments not conforming to prescribed health standards.
GOE: 11.10.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

187.117-054 SUPERINTENDENT, RECREATION (government ser.) alternate titles: director, recreation

Plans, promotes, organizes, and administers public recreation service for entire community, under policies established by public managing authority. Selects, develops, and supervises paid staff and volunteers. Superintends acquisition, planning, design, construction, and maintenance of recreation facilities. Evaluates effectiveness of recreation areas, facilities, and services. Studies local conditions and develops immediate and long range plans to meet recreational needs of all age groups. Prepares budget and directs expenditure of department funds and keeping of department records. Interprets recreation program to public and maintains cooperative planning and working relationships with allied public and voluntary agencies. Serves as technical adviser to managing authority and as recreation consultant to community.
GOE: 11.07.04 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

187.117-058 DIRECTOR, OUTPATIENT SERVICES (medical ser.)

Supervises and directs activities of outpatient clinic and coordinates activities of clinic with those of other hospital departments: Establishes clinic policies and procedures in cooperation with other hospital officials. Interprets and administers personnel policies and provides for training program. Reviews clinic activities and recommends changes in, or better utilization of, facilities, services, and staff. Establishes and maintains work schedules and assignments of resident professional staff members. Authorizes purchase of supplies and equipment. Prepares and submits budget, records, reports, and statistical data to ADMINISTRATOR, HEALTH CARE FACILITY (medical ser.) 187.117-010. Meets with personnel of other local institutions and organizations to promote public health and educational services. Oversees operation of clinic and recommends procedures, treatments, or other course of action to assist medical staff.
GOE: 11.07.02 STRENGTH: S GED: R6 M5 L6 SVP: 8 DLU: 86

187.117-062 RADIOLOGY ADMINISTRATOR (medical ser.)

Plans, directs, and coordinates administrative activities of radiology department of hospital medical center: Conducts studies and implements changes to improve internal operations of department. Advises staff and supervisors on administrative changes. Assists hospital officials in preparation of department budget. Conducts specified classes and provides training material to assist in student training program. Directs and coordinates personnel activities of department. Recommends cost saving methods and hospital supply changes to effect economy of department operations. Interprets, prepares, and distributes statistical data regarding department operations.
GOE: 11.07.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 86

187.117-066 EXECUTIVE DIRECTOR, RED CROSS (nonprofit org.)

Directs and coordinates operations of nonprofit agency to provide food, medical care, financial aid, and other special services: Oversees agency volunteer operations in areas such as blood donor program, nursing, and financial assistance to assure program adherence to agency charter. Participates in community activities to develop opportunities to ascertain needs, serve clients, and promote agency goals. Establishes and maintains close working relationships with cooperating agencies to avoid duplication of services. Prepares budget in consultation with departmental directors to allocate funds, control costs, and maintain operations at level consistent with agency guidelines. Recommends new policy and procedures to agency governing board. Advises volunteer leaders of potential problems and recommends alternative methods of providing service. Negotiates with community organizations to plan joint fund-raising campaigns. Hires paid staff in consultation with agency head. Confers with staff and disseminates written materials to inform staff of current developments.
GOE: 11.07.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

187.134-010 SUPERVISOR, CONTRACT-SHELTERED WORKSHOP (nonprofit org.)

Supervises and coordinates activities of handicapped individuals in sheltered workshop to train and improve vocational skills for gainful employment through productive work: Assigns individual to specific tasks, such as cleaning, sorting, assembling, repairing, or hand packing products or components. Demonstrates job duties to handicapped individual and observes worker performing tasks to ensure understanding of job duties. Monitors work performance at each

individual's work station to ensure compliance with procedures and safety regulations and to note behavior deviations. Examines workpiece visually to verify adherence to specifications. Confers with individuals to explain or to demonstrate task again to resolve work related difficulties. Reassigns individual to simpler tasks when worker cannot perform assigned tasks, or to tasks containing higher degrees of complexity as level of competence is reached. Performs other duties described under SUPERVISOR (any industry) Master Title.
GOE: 11.07.03 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

187.137-014 SUPERVISOR, VOLUNTEER SERVICES (profess. & kin.) alternate titles: volunteer services assistant
Supervises volunteer workers and coordinates activities in specified project or work area within organization to help strengthen and extend selected public or private programs and projects: Recruits, interviews, and classifies applicants for volunteer work and trains and supervises volunteers in specific assignments. Informs volunteers of policies, procedures, and standards of volunteer service. Reviews written reports and observes work activities of volunteers to evaluate work performance. Confers with volunteers to resolve grievances and promote cooperation and interest. Participates in programs of public recognition for volunteer workers. Supervises workers engaged in preparing and maintaining records of volunteer service programs, needs, and donations. May perform volunteer work in such areas as teaching, corrections, medical specialty, or social work and be known accordingly. May develop, organize, and direct special activities or programs of volunteer agency or department of organization and be designated Program Director (profess. & kin.).
GOE: 11.07.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 78

187.137-018 MANAGER, FRONT OFFICE (hotel & rest.)
Coordinates front-office activities of hotel or motel and resolves problems arising from guests' complaints, reservation and room assignment activities, and unusual requests and inquiries: Assigns duties and shifts to workers and observes performances to ensure adherence to hotel policies and established operating procedures. Confers and cooperates with other department heads to ensure coordination of hotel activities. Answers inquiries pertaining to hotel policies and services. Greets important guests. Arranges for private telephone line and other special services. May patrol public rooms, investigate disturbances, and warn troublemakers. May interview and hire applicants. May receive and process advance registration payments. May send out letters of confirmation or return checks when registration cannot be accepted.
GOE: 11.11.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 80

187.161-010 EXECUTIVE CHEF (hotel & rest.) alternate titles: chef de cuisine; chef, head; manager, food production
Coordinates activities of and directs indoctrination and training of CHEFS (hotel & rest.); COOKS (hotel & rest.); and other kitchen workers engaged in preparing and cooking foods in hotels or restaurants to ensure an efficient and profitable food service: Plans or participates in planning menus and utilization of food surpluses and leftovers, taking into account probable number of guests, marketing conditions, popularity of various dishes, and recency of menu. Estimates food consumption, and purchases or requisitions foodstuffs and kitchen supplies. Reviews menus, analyzes recipes, determines food, labor, and overhead costs, and assigns prices to menu items. Directs food apportionment policy to control costs. Supervises cooking and other kitchen personnel and coordinates their assignments to ensure economical and timely food production. Observes methods of food preparation and cooking, sizes of portions, and garnishing of foods to ensure food is prepared in prescribed manner. Tests cooked foods by tasting and smelling them. Devises special dishes and develops recipes. Hires and discharges employees. Familarizes newly hired CHEFS (hotel & rest.) and COOKS (hotel & rest.) with practices of restaurant kitchen and oversees training of COOK APPRENTICES (hotel & rest.). Maintains time and payroll records. Establishes and enforces nutrition and sanitation standards for restaurant. May supervise or cooperate with STEWARD/STEWARDESS (hotel & rest.) in matters pertaining to kitchen, pantry, and storeroom.
GOE: 11.05.02 STRENGTH: L GED: R5 M4 L3 SVP: 8 DLU: 77

187.161-014 MANAGER, HANDICRAFT-OR-HOBBY SHOP (amuse. & rec.)
Manages hobby shops and coordinates activities of workers engaged in conducting classes in one or more crafts, such as woodworking, photography, and leather tooling for hobby or craft shop: Plans and initiates promotional projects to publicize recreational facilities. Prepares budget request for additional craft facilities. Conducts surveys to determine which crafts are in demand to ensure that facilities are acquired. Inventories and requisitions supplies. Plans and coordinates activities of subordinates conducting classes. Prepares accounting reports on disbursement of funds. Demonstrates use of machines and equipment to enforce safety rules and regulations.
GOE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-010 APPLIANCE-SERVICE SUPERVISOR (utilities) alternate titles: electrical-appliance service supervisor; merchandise supervisor; utilization supervisor
Coordinates activities of merchandise-servicing department of gas or electric appliance distributors: Supervises, trains, and assigns duties to workers engaged in servicing appliances, pricing, and disposition of returned merchandise and excess repair parts. Develops company policies and procedures regarding servicing of appliances and disposition of defective parts. Consults manufacturers to obtain advice on unusual service problems and to obtain service instructions and parts catalogs. May write instructions on care and use of appliances for distribution to public.
GOE: 05.02.06 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-014 BOOKMAKER (amuse. & rec.) alternate titles: bookie
Manages establishment to receive and pay off bets placed by horse racing patrons: Prepares and issues lists of approximate handicap odds on each horse prior to race, from knowledge of previous performance of horse under existing conditions of weather and track. Determines risks on each horse to refuse additional bets after maximum desired limit of liability has been reached. Records bets placed over counter or by telephone or teletype. Issues betting receipts. Pays off bets on track parimutuel basis. May supervise and coordinate activities of CASHIERS, GAMBLING (amuse. & rec.). May balance betting accounts and keep records as required by state or municipal authorities. May place customers' bets with cooperating BOOKMAKERS (amuse. & rec.) to limit liability and apportion risk. May be designated Sports Bookmaker (amuse. & rec.) when taking bets on sports, such as football, boxing, baseball, and hockey.
GOE: 11.06.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

187.167-018 BUSINESS REPRESENTATIVE, LABOR UNION (profess. & kin.)
Manages business affairs of labor union: Coordinates and directs such union functions as promoting local membership, placing union members on jobs, arranging local meetings, and maintaining relations between union and employers and press representatives. Visits work sites to ensure management and labor employees adhere to union contract specifications. May assist in developing plant production and safety and health measures. May negotiate with management on hours, wages, individual grievances, and other work-related matters affecting employees.
GOE: 11.05.02 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

187.167-022 COORDINATOR, VOLUNTEER SERVICES (social ser.) alternate titles: volunteer coordinator
Coordinates student and community volunteer services program in organizations engaged in public, social, and welfare activities: Consults administrators and staff to determine organization needs for various volunteer services and plans for volunteer recruitment. Interviews, screens, and refers applicants to appropriate units. Orients and trains volunteers prior to assignment in specific units. Arranges for on-the-job and other required training and supervision and evaluation of volunteers. Resolves personnel problems. Serves as liaison between administration, staff, and volunteers. Prepares and maintains procedural and training manuals. Speaks to community groups, explaining organization activities and role of volunteer program. Publishes agency newsletter, and prepares news items for other news media. Maintains personnel records. Prepares statistical reports on extent, nature, and value of volunteer service.
GOE: 11.07.01 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

187.167-026 DIRECTOR, FOOD SERVICES (hotel & rest.) alternate titles: manager, school lunch program
Coordinates activities of workers engaged in preparing noon meals in school or school system cafeterias: Plans menus of nutritional value. Purchases foods and supplies. Consults with administrative staff and PRINCIPAL (education) 099.117-018 to develop policies and procedures for operating school kitchens and cafeterias. Conducts research program to improve existing practices and services. Keeps records required by other governmental agencies regarding milk subsidies and surplus foods. Directs hiring and training of employees. Prepares budgetary reports.
GOE: 11.11.04 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 80

187.167-030 DIRECTOR, FUNERAL (personal ser.) alternate titles: manager, funeral home; mortician; undertaker
Arranges and directs funeral services: Coordinates activities of workers to remove body to mortuary for embalming. Interviews family or other authorized person to arrange details, such as preparation of obituary notice, selection of urn or casket, determination of location and time of cremation or burial, selection of PALLBEARERS (personal ser.), procurement of official for religious rites, and transportation of mourners. Plans placement of casket in parlor or chapel and adjusts lights, fixtures, and floral displays. Directs PALLBEARERS (personal ser.) in placement and removal of casket from hearse. Closes casket and leads funeral cortege to church or burial site. Directs preparations and shipment of body for out-of-state burial. May prepare body for interment [EMBALMER (personal ser.)].
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-034 DIRECTOR, NURSES' REGISTRY (medical ser.) alternate titles: registrar, nurses' registry
Directs registry services for NURSES, PRIVATE DUTY (medical ser.) according to regulations established by state or district professional nurses' association: Maintains roster of nurses available for duty. Refers nurses in response to requests. Keeps record of number and type of calls received. Analyzes problems of registry to render more efficient service and operations. Informs registrants of new and revised requirements and regulations. May assist in recruiting nurses for emergencies. May be responsible for financial administration of registry.
GOE: 07.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 6 DLU: 77

187.167-038 DIRECTOR, VOLUNTEER SERVICES (social ser.)
Directs activities of volunteer agencies and workers offering their services to hospitals, social service, and community agencies: Confers with administrative

taff to plan volunteer program consistent with needs of institution or agency. Recommends establishment of policies and procedures for inservice training, vork hours, and types of service to be performed by volunteers. Secures serv- ces of volunteer workers. Organizes classes of instruction for volunteers to each procedures and techniques. Suggests and directs projects to be carried out by volunteer workers. Assigns workers to various services with hospital or gency. Conducts surveys to evaluate effectiveness of volunteer service pro- ram. Arranges for recognition of volunteers for their services.
GOE: 11.07.02 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

87.167-042 DIVISION MANAGER, CHAMBER OF COMMERCE (non-profit org.) alternate titles: department manager, chamber of commerce

Directs and administers activities of department of chamber of commerce, uch as domestic trade, construction industries, or aviation and space depart- nents: Analyzes market trends and economic conditions to forecast potential ales of products or services in area. Assists business and industrial organiza- ions on such problems as expansions, cost reductions, and community develop- nent. Advises business organizations and industrial groups on tax problems and egislation. Studies agricultural economy for exploitation of rural resources, pro- luction and marketing of farm products, improving farm income, and effecting avorable agricultural legislation. Suggests civic improvements, such as commu- ity zoning, planning, public housing programs, and airport expansions, based on surveys of community needs. Plans and directs educational campaigns to romote public support of such community programs as housing, transportation, nd hospital facilities. Stimulates civic and economic growth of community by vriting and giving speeches to promote tourist travel, to solicit convention busi- ess, and to induce labor and industry to immigrate into area. May represent hamber at public, social and business receptions, or before governmental agen- ies. May be designated according to field of specialization or department man- ged as Manager, Aviation And Space (nonprofit org.); Manager, Construction ndustries (nonprofit org.); Manager, Domestic Trade (nonprofit org.).
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 79

87.167-046 EXECUTIVE HOUSEKEEPER (any industry) alternate titles: custodial services manager; director, housekeeping; housekeeper, administrative; housekeeper, head

Directs institutional housekeeping program to ensure clean, orderly, and at- ractive conditions of establishment: Establishes standards and procedures for vork of housekeeping staff, and plans work schedules to ensure adequate serv- ce. Inspects and evaluates physical condition of establishment, and submits to nanagement recommendations for painting, repairs, furnishings, relocation of quipment, and reallocation of space. Periodically inventories supplies and quipment. Reads trade journals to keep informed of new and improved clean- ng methods, products, supplies, and equipment. Organizes and directs depart- nental training programs, resolves personnel problems, hires new employees, nd evaluates employees performance and working relationship. Maintains ecords and prepares periodic activity and personnel reports for review by man- gement. Coordinates activities with those of other departments. May select and urchase new furnishings. May evaluate records to forecast department person- el requirements, and to prepare budget. May perform cleaning duties in cases f emergency or staff shortage.
GOE: 11.11.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 87

87.167-050 MANAGER, AGRICULTURAL-LABOR CAMP (profess. & kin.) alternate titles: superintendent, camp

Coordinates activities of residential camp for seasonal agricultural workers: Directs activities, such as maintenance of buildings and facilities, preparation f meals and type of food served, compliance with state health and fire regula- ons, and assignment of living quarters. Arranges medical care for sick or in- ured workers. Assists underage employees in obtaining health and birth cer- ficates and work permits. Administers recreation programs. Prepares periodic eports of camp operation. May recruit and employ workers prior to camp pening.
GOE: 11.11.04 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

87.167-054 MANAGER, AQUATIC FACILITY (amuse. & rec.)

Manages sea circus facility: Establishes operational procedures relating to urchasing, accounting, and budgeting. Hires and coordinates activities of sub- dinates and performers. Reviews operational expense and other financial re- orts for accuracy and budget preparation. Inspects facility for compliance with ccupational, health, and safety regulations.
OE: 11.11.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

7.167-058 MANAGER, BARBER OR BEAUTY SHOP (personal ser.)

Manages business operations and directs personal service functions of barber beauty shop: Confers with employees to ensure quality services for patrons, ch as haircuts, facials, hair styling, shaves, massages, shampoos, and mani- ures. Makes appointments and assigns patrons to BARBERS (personal ser.) or OSMETOLOGIST (personal ser.) to maintain uniform employee schedules. djusts customer complaints and promotes new business by expressing personal terest in efficient service for patrons. Directs sanitary maintenance of shop compliance with health regulations and requires cleanliness, neatness, and ourtesy of employees. Negotiates leases and orders equipment and supplies. eeps accounts of receipts and expenditures and makes up payroll. Performs rvices of BARBER (personal ser.) or COSMETOLOGIST (personal ser.) in ldition to management functions. May supervise on-the-job training and school attendance of apprentice. May train apprentice and master barbers. May supervise MANICURIST (personal ser.); SHOE SHINER (personal ser.) and other workers.
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-062 MANAGER, BRANCH OPERATION EVALUATION (hotel & rest.)

Examines, analyzes, and evaluates operations of individual branches of chain of restaurants, motels, or other facilities to ensure adherence to company standards and policies: Travels from branch to branch and visually checks physical structures and surroundings, noting degree of maintenance provided or required and unusual wear and tear. Notes condition of furniture, linens, and supplies and recommends replacements where necessary. Evaluates adequacy of return of investment on individual branches and alters or initiates procedures to improve service and reduce expenses. Examines books of account of individual establishment. Prepares report, summarizing findings and including recommendations for maintenance, repair, changes in operational procedures, and purchase requirements, and submits report to home office.
GOE: 11.05.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

187.167-066 MANAGER, CAMP (construction; logging)

Directs and coordinates activities of workers concerned with preparing and maintaining buildings and facilities in residential construction or logging camp: Coordinates through subordinate personnel or personally directs workers engaged in preparing and maintaining such camp facilities as dining halls and barracks used by resident laborers. Directs activities of food service workers. Schedules purchase and delivery of food supplies. Enforces safety and sanitation regulations.
GOE: 05.10.04 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

187.167-070 MANAGER, CASINO (amuse. & rec.)

Manages casino operation: Establishes policy on types of gambling to be offered, extension of credit, and serving food and beverages. Hires and delegates authority to subordinates. Reviews operational expense and collection reports for accuracy. Resolves complaints requiring explanation and interpretation of house rules.
GOE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-074 MANAGER, CEMETERY (real estate) alternate titles: superintendent, cemetery

Directs cemetery program and coordinates, through subordinate personnel, activities of workers engaged in providing burial services and maintaining cemetery grounds: Formulates and administers cemetery policy and services under authority of governing board. Analyzes and coordinates budget estimates and regulates expenditures to administer budget. Periodically observes monuments to determine needs for repair or replacement. Oversees hiring and firing of applicants and workers. Directs activities of clerical staff and other workers engaged in burial services, landscaping, or maintenance of cemetery grounds. Directs subordinates to arrange details, such as site of burial, digging of grave or opening of crypt, and placement of equipment and protective covering, with DIRECTOR, FUNERAL (personal ser.) 187.167-030 or other official for burial services. Directs subordinates to carry out burial arrangements. May participate in layout, planning and preparing paperwork on construction projects. May confer with suppliers, architects, contractors, paving company officials, and plumbers to plan and oversee major projects. May supervise sales staff or sell burial lots to patrons.
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 86

187.167-078 MANAGER, CONVENTION (hotel & rest.)

Coordinates activities of staff and convention personnel to make arrangements for group meetings and conventions to be held in hotel: Consults with representatives of group or organization to plan details, such as number of persons expected, display space desired, and food-service schedule. Obtains permits from fire and health departments to erect displays and exhibits and serve food in rooms other than dining rooms. Notifies various department heads of arrangements made. Directs workers in preparing banquet and convention rooms and erecting displays and exhibits. Inspects rooms and displays for conformance to needs and desires of group. Arranges publicity, special functions, adjusts complaints, and performs other duties to promote goodwill.
GOE: 11.11.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

187.167-082 MANAGER, CUSTOMER SERVICES (business ser.; retail trade)

Directs and coordinates customer service activities of establishment to install, service, maintain, and repair durable goods, such as machines, equipment, major appliances, or other items sold, leased, or rented with service contract or warranty: Reviews customer requests for service to ascertain cause for service request, type of malfunction, and customer address. Determines staff hours, number of personnel, and parts and equipment required for service call, utilizing knowledge of product, typical malfunctions, and service procedures and practices. Prepares schedules for service personnel, assigns personnel to routes or to specific repair and maintenance work according to workers' knowledge, experience, and repair capabilities on specific types of products. Arranges for transportation of machines and equipment to customer's location for installation or from customer's location to shop for repairs that cannot be performed on premises. Keeps records of work hours and parts utilized, and work performed for each service call. Requisitions replacement parts and supplies. May contact service personnel over radio-telephone to obtain or give information and directions regarding service or installation activities.

GOE: 05.10.02 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

187.167-086 MANAGER, DANCE STUDIO (education)

Sells dancing lessons and coordinates activities of branch dance studio, in accord with policies established by head office of chain: Directs sales activities, dance instruction of patrons, and maintenance of required records. Selects, trains, promotes, and discharges instructional, sales, and clerical personnel. Coordinates advertising activities of studio in print media, on radio and television, or through other channels, using prepared materials supplied by head office. Interviews prospective patrons and attempts to persuade them to sign instructional contracts. Gives dancing demonstrations for prospective patrons to stimulate sales. May give instruction [INSTRUCTOR, DANCING (education)].
GOE: 01.05.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

187.167-090 MANAGER, DENTAL LABORATORY (protective dev.)

Coordinates activities of workers in dental laboratory engaged in making and repairing full or partial dentures, crowns, inlays, and bridgework: Coordinates production schedules to ensure that work is completed by delivery date. Studies processing methods to determine reasons for production difficulties. Analyzes cost and production records to ensure that operation is efficient and profitable. Institutes measures or approves suggestions to improve efficiency of operation and working conditions. Examines finished products for conformance to specifications. May contact DENTISTS (medical ser.) 072.101-010 to solicit business. May make and repair dental appliances [DENTAL-LABORATORY TECHNICIAN (protective dev.) 712.381-018].
GOE: 05.05.11 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

187.167-094 MANAGER, DUDE RANCH (amuse. & rec.)

Directs operation of dude ranch: Formulates policy on advertising, publicity, guest rates, and credit. Plans recreational and entertainment activities, such as camping, fishing, hunting, horseback riding, and dancing. Directs activities of DUDE WRANGLERS (amuse. & rec.). Directs preparation and maintenance of financial records. Directs other activities, such as breeding, raising, and showing horses, mules, and livestock.
GOE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-098 MANAGER, EMPLOYMENT AGENCY (profess. & kin.)

Manages employment services and business operations of private employment agency: Directs hiring, training, and evaluation of employees. Analyzes placement reports to determine effectiveness of EMPLOYMENT INTERVIEWERS (profess. & kin.). Participates in development and utilization of job development methods to promote business for agency. Enforces, through subordinate staff, agency policies, procedures, safety rules, and regulations. Approves or disapproves requests for purchase of new equipment and supplies. Ensures maintenance and repair of facilities and equipment. Prepares budget requests. Investigates and resolves customer complaints. May negotiate leases and order equipment and supplies for agency.
GOE: 11.11.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

187.167-102 MANAGER, FISH-AND-GAME CLUB (amuse. & rec.)

Manages fish and game club for owner or membership: Hires and coordinates activities of club personnel. Allots camps, fishing areas, and hunting grounds to parties, and arranges for guide services, provisions, and transportation. Purchases and inventories equipment and supplies, and directs workers engaged in maintaining camp property, equipment, and supplies. Ensures that personnel and patrons adhere to fish and game laws.
GOE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

187.167-106 MANAGER, FOOD SERVICE (hotel & rest.; personal ser.)

Coordinates food service activities of hotel, restaurant, or other similar establishment or at social functions: Estimates food and beverage costs and requisitions or purchases supplies. Confers with food preparation and other personnel to plan menus and related activities, such as dining room, bar, and banquet operations. Directs hiring and assignment of personnel. Investigates and resolves food quality and service complaints. May review financial transactions and monitor budget to ensure efficient operation, and to ensure expenditures stay within budget limitations. May be designated according to type of establishment or specialty as Caterer (personal ser.); Manager, Banquet (hotel & rest.); Manager, Cafeteria Or Lunchroom (hotel & rest.); Manager, Catering (hotel & rest.); Manager, Food And Beverage (hotel & rest.); Manager, Restaurant Or Coffee Shop (hotel & rest.).
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 80

187.167-114 MANAGER, GOLF CLUB (amuse. & rec.)

Manages golf club to provide entertainment for patrons: Directs activities of dining room and kitchen workers and crews that maintain club buildings, equipment, and golf course in good condition. Hires and discharges workers. Estimates quantities and costs of foodstuffs, beverages, and groundskeeping equipment to prepare operating budget. Explains necessity of items on budget to board of directors and requests approval. Inspects club buildings, equipment, and golf course. Requisitions materials, such as foodstuffs, beverages, seeds, fertilizers, and groundskeeping equipment. Keeps accounts of receipts and expenditures. May assist in planning tournaments.
GOE: 11.11.02 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

187.167-118 MANAGER, GUN CLUB (amuse. & rec.) alternate titles: manager, range; range master

Manages activities of gun club: Confers with governing body, and other gun clubs, organizations and associations to arrange competitive shooting meets. Publicizes events and club facilities to acquaint public with sport and to solicit members. Informs club members of coming events through bulletin notices or club paper. Purchases ammunition, firearms, and supplies. Sells supplies and firearms to club members. Coordinates events to determine eligible participants, type of competition, and time meet is held. Advises participants of changes in rules and regulations governing meet. Keeps records of expenditures, dues, and membership. Enforces safety rules and regulations. Directs maintenance crew activities, such as placing shooting targets in designated area, repairing targets, keeping yards and grounds clean, and performing landscaping. May instruct new members on use of firearms. May act as judge in competition trap or skeet shooting meets. May repair skeet and trap-bird throwing machines.
GOE: 11.11.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

187.167-122 MANAGER, HOTEL RECREATIONAL FACILITIES (amuse. & rec.)

Manages hotel or motel recreational facilities: Advises guests of available activities, such as swimming, skating, boating, and other sports. Processes applications for rental of cabanas, docking of yachts, and membership. Hires and directs activities of subordinates. Compiles record of receipts collected for use of facilities. Requisitions supplies and equipment.
GOE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-126 MANAGER, LIQUOR ESTABLISHMENT (hotel & rest.) alternate titles: manager, club

Coordinates activities of workers engaged in selling alcoholic beverages for consumption on premises: Estimates and orders foodstuffs, liquors, wines, or other beverages, and supplies. Interviews, hires, trains, and discharges workers. Adjusts customer's complaints concerning service, food, and beverages. Inspects establishment and observes workers and patrons to ensure compliance with occupational, health, and safety standards and local liquor regulations. May plan and arrange promotional programs and advertisement. May hire entertainers. May be designated according to kind of establishment managed as Manager, Beer Parlor (hotel & rest.); Manager, Cocktail Lounge (hotel & rest.); Manager, Night Club (hotel & rest.); Manager, Tavern (hotel & rest.).
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

187.167-130 MANAGER, MARINE SERVICE (ship-boat mfg.)

Directs activities of boat-repair service, according to knowledge of maintenance needs of small craft and marine safety requirements: Confers with owner or crew of vessel to obtain maintenance history and details concerning condition of craft. Observes and listens to vessel in operation to detect unsafe or malfunctioning equipment and leaks or other flaws in hull and superstructure. Performs tests on vessel and equipment, using gauges and other standard testing devices. Estimates cost of repairs according to familiarity with labor and materials requirements or fee schedule. Directs and coordinates activities of workers engaged in repairing, painting, and otherwise restoring vessels to seaworthy condition. May repair vessels, assisted by other workers.
GOE: 05.05.09 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

187.167-134 MANAGER, MUTUEL DEPARTMENT (amuse. & rec.)

Coordinates activities of workers engaged in selling parimutuel tickets and calculating amount of money to be paid to patrons holding winning tickets at racetrack: Directs workers compiling summary sheets for each race to show total amount of money wagered, total number of tickets sold on each horse, and calculating amount of money to be paid to patrons holding winning tickets. Keeps attendance records. Hires workers, schedules working hours, and assigns work stations. Examines calculations of workers periodically to detect errors. Adjusts customer complaints.
GOE: 07.03.01 STRENGTH: S GED: R4 M4 L4 SVP: 5 DLU: 77

187.167-138 MANAGER, SALES (laundry & rel.)

Manages sales functions of drycleaning establishment: Coordinates activities of SERVICE-ESTABLISHMENT ATTENDANT (laundry & rel.; personal ser.) and DRIVERS, SALES ROUTE (retail trade; wholesale tr.). Visits customers to make estimates on proposed work, such as cleaning draperies, rugs, and upholstered furniture. Adjusts customers' complaints. Directs advertising and promotion campaigns.
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-142 MANAGER, SERVICE DEPARTMENT (wholesale tr.) alternate titles: manager, service; service supervisor

Manages farm machinery service department and warehouse: Directs workers engaged in servicing equipment, such as mowers, cotton pickers, hay balers, and combines. Analyzes requests for service and records repairs, replacements, or service required. Informs field service personnel of location and work to be done. Authorizes issuance of replacement parts. Provides training for service personnel. May replenish warehouse stock.
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

187.167-146 MANAGER, SKATING RINK (amuse. & rec.)

Manages ice or roller skating rink and coordinates activities of workers engaged in selling admission tickets, issuing skates to patrons, and enforcing skating rules and regulations on floor: Establishes hours that rink is open for business. Plans and initiates promotional projects to advertise establishment. Arranges private parties. Purchases skates and skating supplies. Sells skates and skating supplies to patrons. Keeps record of budget. Arranges for individual or group skating instruction. Inspects building to detect need for maintenance. Inspects floor to determine need for resanding or for scraping of ice. May repair

oken skates. May be designated according to type of rink managed as Man- er, Ice-Skating Rink (amuse. & rec.); Manager, Roller-Skating Rink (amuse. rec.).
OE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

87.167-150 MANAGER, STORAGE GARAGE (automotive ser.)
Supervises attendants and coordinates operation of automobile storage garage parking lot: Plans work schedule, assigns duties to PARKING-LOT AT- ENDANTS (automotive ser.), and supervises worker's activities to ensure mpliance with established rules and regulations. Coordinates issuance of rking tickets, stickers, and validations. Keeps daily record of operations, in- iding money received, services performed, and accidents reported. Advises stomers on garage or parking lot services and insurance rules. May balance nount of cash received against daily receipts and records. May order gas if rage has operating pumps. May perform duties of PARKING-LOT ATTEND- NT (automotive ser.).
OE: 11.11.03 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

87.167-154 MANAGER, THEATER (amuse. & rec.) alternate titles: manager, house
Manages theater for stage productions or motion pictures: Coordinates activi- s of personnel to ensure efficient operation and to promote patronage of thea- . Directs workers in making alterations to and repair of building. Manages nancial business of theater. Determines price of admission and promotes thea- r events. Orders and sells theater tickets. Requisitions or purchases supplies. ay book pictures or stage attractions designed to meet tastes of patrons. May gotiate contracts for scripts or performers. May solicit advertisements from siness and community groups. May prepare and monitor theater schedules d budget.
OE: 11.11.02 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 80

87.167-158 MANAGER, TRAVEL AGENCY (business ser.; retail trade)
Manages travel agency: Directs, coordinates, and participates in mer- andising travel agency services, such as sale of transportation company car- er tickets, packaged or specialized tours, or vacation packages. Plans work hedules for employees. Trains employees in advising customers on current aveling conditions, planning customer travel and itineraries, ticketing and oking functions, and in calculating costs for transportation and accommoda- ons from current transportation schedules and tariff books and accommodation te books. Sells travel tickets, packaged and specialized tours, and advises cus- mers on travel plans. Reviews employee ticketing and sales activities to en- re cost calculations, booking, and transportation scheduling are in accordance ith current transportation carrier schedules, tariff rates, and regulations and at charges are made for accommodations. Reconciles sales slips and cash ily. Coordinates sales promotion activities, approves advertising copy, and avel display work. Keeps employee records and hires and discharges employ- s.
OE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

87.167-162 MANAGER, VEHICLE LEASING AND RENTAL (automotive ser.)
Manages automobile and truck leasing business: Directs and evaluates leas- g, sales, advertising, and administrative procedures, including collections, in- ntory financing, and used car sales. Directs and monitors audit of financial counts to assure compliance with prescribed standards. May visit franchised alers to stimulate interest in establishment or expansion of leasing programs.
OE: 11.11.05 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

87.167-166 MANAGER, WINTER SPORTS (amuse. & rec.)
Directs sports program at winter resort and coordinates activities of resort nployees: Advises resort management or owner of optimum dates for opening d closing resort, taking into consideration weather predictions, reservations cklog from guests, and experience of previous season. Orders supplies, such skiing and skating rental gear and provisions. Coordinates activities of custo- al staff, food-service workers, and other resort employees to ensure availabil- of facilities on opening date. Trains winter-sports instructors and service rsonnel. Ensures that skating rink and ski slopes are suitable for use by pub- , notifying resort personnel to take appropriate action according to weather nditions. Inventories supplies and keeps records of weather conditions. Issues eather reports to resort management. Arranges for snow removal from roads public authorities. May give instruction to guests in winter sports participa- on.
OE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

7.167-170 MANAGER, WORLD TRADE AND MARITIME DIVISION (nonprofit org.)
Directs activities of world trade department in chamber of commerce to assist siness concerns in developing and utilizing foreign markets: Conducts eco- mic and commercial surveys in foreign countries to locate markets for prod- ts and services. Analyzes data and publishes bulletins concerning business de- lopments in other countries, regulations affecting world trade, and opportuni- s for selling and buying products. Advises business and other groups on cal, national, and international legislation affecting world trade. Advises ex- rters and importers on documentation procedures and certifies commercial cuments that are required by foreign countries. Entertains foreign govern- ental officials and business representatives to promote trade relations. Pro- otes travel to other countries.
OF: 11.05.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

187.167-174 PRODUCER (motion picture)
Coordinates activities of personnel engaged in writing, directing, editing, and producing motion pictures: Reviews synopses and scripts and directs adaptation for screen. Determines treatment and scope of proposed productions and establishes departmental operating budgets. Selects principal members of cast and key production staff members. Reviews filmed scenes of each day's shooting, orders retakes, and approves final editing of filmed productions. Conducts meetings with DIRECTOR, MOTION PICTURE (motion picture), SCREEN WRITER (motion picture; radio-tv broad.), and other staff members to discuss production progress and results.
GOE: 01.01.01 STRENGTH: S GED: R6 M5 L6 SVP: 8 DLU: 77

187.167-178 PRODUCER (amuse. & rec.)
Selects play for stage performance, arranges finances, and coordinates play production activities: Reads manuscripts and selects play on basis of plot, timeliness, and quality of writing. Sells shares to investors to finance production. Hires DIRECTOR, STAGE (amuse. & rec.); MANAGER, STAGE (amuse. & rec.), cast, and crew. Formulates business management policies and coordinates production schedules. Suggests or approves changes in script and staging. Arbitrates personnel disputes. May direct production of play [DIRECTOR, STAGE (amuse. & rec.)]. May produce shows for special occasions, such as fund-raising events or testimonial banquets.
GOE: 01.03.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

187.167-182 PRODUCER, ASSISTANT (motion picture)
Directs activities of one or more departments of motion picture studio. May direct preparation of daily production schedules and operating cost reports.
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

187.167-186 RESIDENCE SUPERVISOR (any industry) alternate titles: adviser; chaperon; cottage parent; house manager
Coordinates variety of activities for residents of boarding school, college fraternity or sorority house, care and treatment institution, children's home, or similar establishment: Orders supplies and determines need for maintenance, repairs, and furnishings. Assigns rooms, assists in planning recreational activities, and supervises work and study programs. Counsels residents in identifying and resolving social or other problems. Compiles records of daily activities of residents. Chaperones group-sponsored trips and social functions. Ascertains need for and secures services of physician. Answers telephone and sorts and distributes mail. May escort individuals on trips outside establishment for shopping or to obtain medical or dental services. May hire and supervise activities of housekeeping personnel. May plan menus.
GOE: 11.07.01 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

187.167-190 SUPERINTENDENT, BUILDING (any industry) alternate titles: building-service supervisor; manager, building
Directs activities of workers engaged in operating and maintaining facilities and equipment in buildings such as apartment houses or office buildings: Inspects facilities and equipment to determine need and extent of service, equipment required, and type and number of operation and maintenance personnel needed. Hires, trains, and supervises building service personnel. Assigns workers to duties such as maintenance, repair, or renovation and obtains bids for additional work from outside contractors. Directs contracted projects to ensure adherence to specifications. Purchases building and maintenance supplies, machinery, equipment, and furniture. Plans and administers building department budget. Compiles records of labor and material cost for operating building and issues cost reports to owner or managing agents. May prepare construction specifications or plans, obtaining advice from engineering consultants, assemble and analyze contract bids, and submit bids and recommendations to superiors for action.
GOE: 05.02.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 87

187.167-194 SUPERINTENDENT, LAUNDRY (laundry & rel.)
Manages laundry plant in linen supply establishment or commercial or industrial laundry: Schedules flow of work through sorting, washing, and ironing departments, taking into consideration amount of clothes to be laundered and capacity of equipment. Hires, discharges, and transfers employees according to work performance and production needs. Purchases supplies, such as soap, starch, and bleach. Prepares and analyzes reports on labor cost and production operations to determine whether operating cost standards are being met. Tests strength of bleach, using chemical test kit. Performs other administrative and supervisory duties to ensure efficient and profitable operation. Supervises workers directly or through subordinates.
GOE: 11.11.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

187.167-198 VETERANS CONTACT REPRESENTATIVE (nonprofit org.) alternate titles: liaison officer; national insurance officer; rehabilitation officer; service officer; veterans' claims representative; veterans' counselor; veterans' service officer
Advises and aids veterans or dependents in presenting disability, insurance, or pension claims for benefits under federal, state, or local laws: Reviews legislation, regulations, and precedents and studies veteran's medical report and service history to evaluate and determine validity of claim. Obtains claimant's power of attorney. Prepares claim forms and briefs and assembles pertinent evidence. Requests hearing before government board and presents brief. Reviews board decision for grounds for appeal. Advises veteran on insurance, vocational, and other matters, working in cooperation with Veterans Administration and other agencies. Prepares bulletins and correspondence to acquaint field rep-

resentatives with current activities and legislation. Participates in or initiates civic functions, such as panel discussions and mass communication programs, to inform public of services rendered and rights and benefits of veterans and dependents. May offer technical advice at congressional or other governmental hearings.
GOE: 10.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

187.167-202 DIRECTOR, CRAFT CENTER (profess. & kin.)
Plans, organizes, and directs activities of craft center operated by folk or history museum, historic or ethnic area or community, or historic or regional theme park: Consults with administrative personnel to plan activities, such as craft classes, exhibits, and other projects conducted in cooperation with sponsoring institution. Orders supplies needed for basketry, leatherwork, candlemaking, macrame, tole painting, beadwork, or other crafts compatible with institution theme. Plans and writes publicity material for craft classes, and coordinates presentation of craft shows and exhibits, arranging for participants, and overseeing installation of exhibit booths, distribution of publicity materials, and scheduling of craft demonstrations. Maintains inventory, personnel, and accounting records. Arranges for consignment of craft items for sale, directs sales personnel, and maintains records of operation. Reports operational activities to institution administrative staff or governing body, and confers with staff to plan and implement changes in operation of facilities.
GOE: 11.07.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

187.167-206 DIETARY MANAGER (hotel & rest.)
Directs and coordinates food service activities of hospital, nursing home, or related facility: Confers with DIETITIAN, CHIEF (profess. & kin.) 077.117-010 to ensure that menus and department policies conform to nutritional standards and government and establishment regulations and procedures. Reviews patient diet information and discusses requests, changes, and inconsistencies with patient, professional staff, or resident food committee. Plans and coordinates through subordinate supervisors, such as KITCHEN SUPERVISOR (hotel & rest.) 319.137-030, standards and procedures of food storage, preparation, and service; equipment and department sanitation; employee safety; and personnel policies and procedures. Inspects food and food preparation and storage areas, using thermometers and knowledge of health and sanitation regulations. Tastes, smells, and observes food to ensure conformance with recipes and appearance standards. Attends meetings with employees, union, establishment, administrative, and regulatory personnel to discuss regulations, procedures, grievances, and recommendations for improving food service. Computes operating costs for own information and for information of administrative personnel. May be required to have competency certificate.
GOE: 11.11.04 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 86

187.167-210 DIRECTOR, FOOD AND BEVERAGE (amuse. & rec.)
Directs and coordinates activities of food service facilities at amusement park, through subordinate managers: Reviews food and beverage lists submitted by each facility manager to determine that sufficient items are ordered weekly. Eliminates or adds items to list, utilizing experience and knowledge of facility operations. Inspects food service facilities to ensure that equipment and buildings meet company, state, and local health laws. Analyzes information concerning facility operation, such as daily food sales, patron attendance, and labor costs to prepare budget and to maintain cost control of facility operations, using calculator and following standard business procedures. Inspects and tastes prepared foods to maintain quality standards and sanitation regulations.
GOE: 11.11.04 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 86

187.167-214 DIRECTOR, SERVICE (nonprofit org.)
Directs and coordinates regional program activities of nonprofit agency to provide specialized human services, such as water safety programs, disaster relief, and emergency transportation: Consults with cooperating agencies, such as police, firefighters, and emergency ambulance services, to coordinate efforts and define areas of jurisdiction. Participates in program activities to serve clients of agency. Prepares budgets to control costs and to allocate funds in accordance with provisions and agency charter. May instruct agency staff and volunteers in skills required to provide services. May requisition and arrange for maintenance of equipment, such as two-way radios and agency vehicles. May coordinate services to disaster victims and be designated Disaster Director (nonprofit org.). May coordinate safety programs, such as water safety and emergency first aid, and be designated Safety Director (nonprofit org.). May coordinate transportation of agency clients, blood, and medical supplies and equipment and be designated Transportation Director (nonprofit org.).
GOE: 11.07.01 STRENGTH: M GED: R5 M3 L5 SVP: 8 DLU: 86

187.167-218 MANAGER, ANIMAL SHELTER (nonprofit org.)
Manages animal shelter: Sets standards for and monitors conduct of shelter employees to ensure that humane philosophy is projected to public and implemented in care of animals. Develops work plans and assigns priorities for organizational units. Reviews shelter practices and procedures to ensure efficient and economical use of resources. Recommends to board of directors policy and personnel changes and budget expenditures. Directs actions to provide follow-up on animal neglect and cruelty complaints appearing to justify prosecution. Answers mail and maintains file of documents such as animal adoption and burial contracts and reports of shelter activities. Verifies cash receipts and deposits cash to shelter accounts. Delivers lectures, prepares materials for media broadcasts, and prepares and publishes newsletters to report agency activities and interpret organizational philosophy to public.
GOE: 11.07.01 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 86

187.167-222 MANAGER, BOWLING ALLEY (amuse. & rec.)
Manages bowling alley: Directs activities of workers engaged in providing services to patrons and in maintaining facilities and equipment. Assigns alleys for use, issues score sheets, and pushes controls to actuate automatic game-scoring equipment. Records number of games played and collects payment. Inspects alleys to ensure equipment is operative and observes patrons to detect disruptive behavior and misuse of alleys and equipment. Rents bowling shoes to patrons. Organizes bowling leagues and informs members of league requirements. Prepares and distributes announcements of league activities, collects member fees, and distributes tournament prizes. May sell bowling equipment. May hire and train workers.
GOE: 11.11.02 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 86

187.167-226 MANAGER, MARINA DRY DOCK (amuse. & rec.; water trans.)
Directs and coordinates dry docking activities at marina: Administers affairs of department, such as planning and coordinating work schedules, assigning storage crib for each boat, and maintaining department budget. Directs workers in maintenance of boats and trailers, such as painting or washing boats, lubricating and repairing motors, and retrofitting trailers and cars with lights and turn signals. Monitors fuel dock operation to ensure services to patrons. Operates, or supervises workers operating, equipment to lift boats from water and transport and dry dock boats, using crane or forklift. Hires, orients, and trains personnel in job duties, safety practices, employer policy, and performance requirements.
GOE: 05.02.07 STRENGTH: H GED: R4 M3 L3 SVP: 6 DLU: 86

187.167-230 MANAGER, RECREATION FACILITY (amuse. & rec.)
Manages recreation facilities, such as tennis courts, golf courses, or arcade, and coordinates activities of workers engaged in providing services of facility: Determines work activities necessary to operate facility, hires workers, and assigns specific tasks and work hours, accordingly. Initiates projects, such as promotional mailing or telephone campaigns, to acquaint public with activities of facility. Discusses fees of facility with interested persons. Registers patrons and explains rules and regulations. Confers with patrons to resolve grievances. Hires workers, such as carpenters, plumbers, and electricians, to make needed facility repairs. Maintains financial records. Collects coins from arcade machines. Purchases items such as golf balls, tennis balls, and paper supplies.
GOE: 11.11.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 86

187.167-234 DIRECTOR, COMMUNITY ORGANIZATION (nonprofit org.) alternate titles: community planning director, community chest; director, council of social agencies; director, federated fund; director, united fund; executive, community planning
Directs activities of organization to coordinate functions of various community health and welfare programs: Organizes and develops planning program to ascertain community requirements and problems in specific fields of welfare work, and to determine agency responsibility for administering program. Surveys functions of member agencies to avoid duplication of efforts and recommends curtailment, extension, modification, or initiation of services. Advises health and welfare agencies in planning and providing services based on community surveys and analyses. Reviews estimated budgets of member agencies. Prepares and releases reports, studies, and publications to promote public understanding of and support for community programs. May recruit and train volunteer workers. May organize and direct campaign for solicitation of funds. May visit agency sites to evaluate effectiveness of services provided.
GOE: 11.07.01 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 80

187.167-238 RECREATION SUPERVISOR (profess. & kin.) alternate titles: area supervisor; district director; recreation specialist
Coordinates activities of paid and volunteer recreation service personnel in public department, voluntary agency, or similar type facility, such as community centers or swimming pools: Develops and promotes recreation program, including music, dance, arts and crafts, cultural arts, nature study, swimming, social recreation and games, or camping. Adapts recreation programs to meet needs of individual agency or institution, such as hospital, armed services, institution for children or aged, settlement house, or penal institution. Introduces new program activities, equipment, and materials to staff. Trains personnel and evaluates performance. Interprets recreation service to public and participates in community meetings and organizational planning. May work in team with administrative or other professional personnel, such as those engaged in medicine, social work, nursing, psychology, and therapy, to ensure that recreation is well balanced, coordinated, and integrated with special services.
GOE: 11.07.04 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 80

188 PUBLIC ADMINISTRATION MANAGERS AND OFFICIALS

This group includes managerial occupations concerned with federal, state, local, and international government activities, such as the legislative, judicial, and administrative functions, as well as government owned and operated business enterprises.

17-010 APPRENTICESHIP CONSULTANT (government ser.) alternate titles: area representative

ects and coordinates apprenticeship training programs in accord with state
ederal policies and standards. Interprets and clarifies state and federal poli-
governing apprenticeship training programs, and provides information and
ance to trainees and labor and management representatives. Visits estab-
ents to ensure that existing programs conform with training standards, in-
gates discrepancies, and submits progress reports. Suggests operational
ods to improve existing programs, to adapt programs to production needs,
velop new training programs, and to recruit and select trainees. Negotiates
labor and management representatives to resolve training problems and to
ote establishment of effective new programs. Reviews and evaluates re-
s for training programs and investigates establishments to ascertain if fa-
s, supervision, and training methods meet government standards. Evaluates
ng programs to determine eligibility for application of veterans benefits.
assist in resolving labor relations issues relating to training programs, such
ges, hours, supervision, and bargaining agreements.
11.07.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

17-014 BUSINESS-ENTERPRISE OFFICER (government ser.) alternate titles: area specialist

ns and directs self-employment rehabilitation programs for handicapped
ns throughout state or region. Interviews handicapped applicants to deter-
suitable job or business consistent with applicant's experience, training,
de, and physical limitations. Accepts or recommends acceptance of suit-
candidates. Develops training methods and trains handicapped persons in
tion of business, according to knowledge of retail merchandising prin-
and techniques. Plans desirable locations for enterprises, considering
ble facilities, traffic volume, fixtures and equipment costs, and character
siness. Negotiates lease or donation of space with property owners and
interested parties. Establishes statistical and accounting procedures to
ate productivity of business and success of proprietor. Coordinates activi-
ith religious, charitable, and other agencies carrying out related programs
nefit handicapped persons. Prepares public information materials explain-
rogram for radio, television, and printed media and presents lectures to
sted groups to increase public awareness of handicapped citizens' prob-
Confers with state purchasing officials to obtain fixtures and initial stock
tail operations at most favorable prices available. Supervises activities of
DING-STAND SUPERVISORS (government ser.) within territory as-
l. May confer with contractors and inspect construction of retail stands
nformity with contract provisions.
11.07.01 STRENGTH: L GED: R5 M4 L5 SVP: 6 DLU: 77

17-018 CHIEF, FISHERY DIVISION (government ser.)

ects state fish conservation program for benefit of sport and commercial
g interests, consistent with state policy and accepted principles of game
gement. Directs activities of personnel engaged in conducting fish count,
ging hatcheries, stocking streams, destroying superfluous or undesirable
and enforcing restrictions governing sport and commercial fishing. Modi-
egulations on size, species, length of fishing season, acceptable fishing
ces, and other considerations according to fluctuations in fish population.
izes programs to correct unfavorable conditions, such as water pollution,
of streams, excessive mortality of given species of fish, and diversion
terways. Delivers speeches, writes articles, and prepares other informa-
material to explain conservation principles and acquaint public with fish-
gulations. Recommends changes in legislation and administrative proce-
as necessary to maintain conservation activities consistent with current
Prepares or directs preparation of budget requests covering staff and
nent requirements.
03.01.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

17-022 CIVIL PREPAREDNESS OFFICER (government ser.)

ordinates activities of workers engaged in preparing for or combating dis-
situations and negotiates with civic and professional leaders to develop
nplement survival plans in accord with local needs and state and federal
es. Directs marking and stocking of radiation shelters to meet specified
rds. Obtains cooperation of property owners, civic leaders, and profes-
groups in providing facilities and services for emergency preparedness.
rs with business and governmental representatives to assist in local emer-
planning. Reviews emergency plans to coordinate with changes in state
eral policies and military technology. Addresses interested civic, social,
ligious groups to stimulate awareness of emergency preparedness activi-
irects inspection and inventory of emergency supplies and equipment and
tions needed materials or arranges for equipment maintenance. May as-
providing warnings and survival information to communities before, dur-
nd after community emergencies. May direct activities of headquarters
cal, clerical, and administrative staffs and assign paid or volunteer work-
duty during simulated or actual emergencies. May review and rec-
nd alterations in local emergency planning to coordinate with changes in
nic character of community or region. May be designated according to
c function as Civil Preparedness Operations Officer (government ser.);
Preparedness Radiological Officer (government ser.); Civil Preparedness
Specialist (government ser.); Director, Civil Preparedness Warden (gov-
nt ser.); Shelter Management Officer (government ser.). May assume re-
bility for local, regional, or state civil preparedness or emergency activi-
d be designated Director, Civil Preparedness (government ser.). May plan
and coordinate procedures for meeting civil preparedness emergencies in industrial establishments and be designated Civil Preparedness Coordinator (profess. & kin.). Workers involved in these and other civil preparedness activities may be identified by different titles according to classifications used by local or national authorities.
GOE: 11.05.03 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 77

188.117-026 COMMISSIONER, CONSERVATION OF RESOURCES (government ser.)

Directs conservation of natural resources within state and negotiates with interested parties to promote maximum utilization of resources consistent with public interest. Initiates conservation programs according to accepted principles and familiarity with characteristics of natural resources and economy of state. Establishes standards for resource depletion, such as annual oil production quotas or limitations on extraction of iron ore deposits. Negotiates with mining interests, petroleum production companies, and other parties to promote conservation principles, encourage technological advancement, and stimulate efficient exploitation of resources. Delivers speeches and participates in discussions with representatives of government, labor, and industry to resolve problems related to conservation and economic development. Participates in establishment and implementation of rehabilitation programs for workers affected by changing technology or loss of markets. Supervises and coordinates, through subordinates, activities of workers engaged in preparing reports, statistics, and other data on departmental activities. May be designated according to resource involved as Commissioner, Iron Range Resources And Rehabilitation (government ser.).
GOE: 11.05.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

188.117-030 COMMISSIONER, PUBLIC WORKS (government ser.) alternate titles: public-works commissioner

Directs and coordinates activities of city departments of public works and utilities. Confers with officials responsible for street and building construction and maintenance, and for supplying water, power, sanitation, or other services to coordinate use of human resources and equipment and to consolidate purchasing requests. Reviews preliminary budgets and adjusts items for conformance to anticipated needs. Attends city council meetings to present budgets, activity reports, and plans for future activities. Confers with suppliers and sellers and places orders for equipment, materials, and supplies. May hire, promote, and discipline employees of departments supervised.
GOE: 11.05.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-034 DIRECTOR, AERONAUTICS COMMISSION (government ser.)

Directs activities of state commission or department of aeronautics. Authorizes airport construction and expansion, and inspection of state aircraft and facilities, and regulation of aviation activities under state control. Formulates policies and work programs. Recommends and drafts rules, regulations, and statutes governing aeronautics in state. Coordinates activities of commission or department with private organizations and other government units to ensure effective aviation programs.
GOE: 11.05.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

188.117-038 DIRECTOR, AGRICULTURAL SERVICES (government ser.)

Administers state agricultural program: Develops and coordinates programs for producing and marketing commodities, such as livestock, grain, dairy products, and produce. Interprets and enforces laws, rules, and regulations governing agricultural commodities. Directs programs, such as weights and measures, inspection of grain and livestock facilities, and processing, packaging, and distribution of agricultural products to ensure compliance with federal and state regulations. Conducts hearings to determine violations and penalties. Represents agency at meetings, conventions, and other forums to promote program objectives. Prepares and releases reports, studies, and other publications relating to marketing trends and program accomplishments. Develops and directs training program for staff personnel.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-042 DIRECTOR, ARTS-AND-HUMANITIES COUNCIL (government ser.)

Administers program to promote visual and performing arts and humanities: Plans, organizes, and executes creative arts program under authority of governing board. Negotiates contracts and agreements with federal and state agencies and other cultural organizations for funding and implementation of programs. Establishes statewide councils and provides guidance in obtaining grants, initiating local projects, and disseminating cultural information. Exchanges ideas through seminars, conferences, and other forums and media to accomplish program objectives.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-046 DIRECTOR, COMPLIANCE (government ser.)

Directs human relations program: Plans, organizes, and executes compliance programs in areas of employment, housing, and education under authority of federal, state, or local discriminatory legislation. Establishes and coordinates activities of local community relations committees. Conducts investigations to resolve complaints and report violations for adjudication. Plans informational programs to stimulate and maintain community interest and support. Cooperates with local, state, and federal governmental units and other organizations in identifying needs and providing assistance in enforcement of statutes.

GOE: 11.10.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

188.117-050 DIRECTOR, CONSUMER AFFAIRS (government ser.)
Administers consumer affairs program: Plans and implements policies and procedures governing program. Develops and conducts program to inform public of departmental objectives. Conducts investigations and cooperates with federal, state, and local agencies, business community, and private organizations to resolve violations of consumer protection laws. Advocates consumer interests before legislative body, regulatory agencies, and other judicial forums. Recommends changes in legislation affecting consumer protection. Directs hiring, training, and evaluation of staff personnel.
GOE: 11.10.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-054 DIRECTOR, CORRECTIONAL AGENCY (government ser.)
Administers state correction program, such as parole, probation, work release, or custodial care. Organizes, develops, and executes departmental policies in accordance with state and federal regulations and under direction of governing board. Establishes cooperative agreements with other state agencies and criminal justice department to plan and promote rehabilitative programs and projects. Investigates complaints or incidents to resolve inmate grievances. Coordinates staff activities, such as fiscal, management, training, and other supportive services. Establishes system of records and reports. Testifies at legislative or other hearings to recommend changes in existing statutes.
GOE: 11.05.03 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 77

188.117-058 DIRECTOR, COUNCIL ON AGING (government ser.) alternate titles: regional coordinator for aging
Directs local or statewide services to promote understanding and resolution of senior citizens' problems: Plans and directs surveys and research studies of such problems as health needs and employment difficulties of older persons. Evaluates findings to formulate policies and techniques for improving adjustment of older citizens. Promotes establishment of or directs local programs and services, such as clinics and hobby groups. Coordinates programs of government, charitable, and religious organizations to avoid duplication. Prepares and distributes public information materials dealing with group problems. Delivers speeches and participates in discussions with community leaders and other interested parties to promote objectives of program. Recommends changes in legislation and public policy to promote interests of aged.
GOE: 11.07.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 80

188.117-062 DIRECTOR, FIELD REPRESENTATIVES (government ser.)
Administers educational and job training programs for veterans of armed services, as established by government regulations, and directs activities of field representatives: Develops and presents reports concerning activities, expenses, budget, new or revised government statutes and rulings, and other items affecting program. Evaluates curriculums, and reviews and approves or rejects applications of schools, establishments, or individuals offering educational or training facilities. Determines eligibility of veterans to receive education or training. Confers with government agencies on problems and other matters relating to program. Interprets regulatory or administrative decisions to execute legal requirements, establishes guides for making decisions in field, and assigns work load to subordinates.
GOE: 11.07.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-066 DIRECTOR, LABOR STANDARDS (government ser.)
Directs labor standards program: Establishes operational procedures and guidelines for enforcing statutes and regulations governing minimum wage, working hours and conditions, employment of minors, and licensing of private employment agencies. Effects liaison with federal agencies to coordinate activities and avoid duplication of effort. Mediates disputes and violations of laws. Conducts research projects to establish standards and proposes legislative changes to implement findings. Develops and directs training program for staff in licensing, inspection, and investigative functions.
GOE: 11.10.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-070 DIRECTOR, LAW ENFORCEMENT (government ser.)
Administers state law enforcement program: Plans and organizes program for units of local and State agencies concerned with law enforcement, criminal justice, corrections, juvenile delinquency, and rehabilitation. Develops and coordinates training program for staff and law enforcement personnel. Promotes community acceptance of crime and delinquency programs through news and other media. Coordinates reporting activities of local and state cooperating agencies.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

188.117-074 DIRECTOR, LICENSING AND REGISTRATION (government ser.)
Administers state program for licensing motorists and motor vehicles: Formulates procedures and guidelines for examining and licensing drivers and registering vehicles in accordance with statutes, rules, and regulations. Coordinates departmental activities, such as clerical, inspection, licensing, registration, and insurance and financial liability. Recommends legislative changes in vehicle and driver license laws. Directs compilation of statistics, such as accidents, fatalities and injuries, and driver characteristics. Directs investigations to resolve problems, such as financial responsibility, license revocations, and related matters. Confers with other state or federal agencies to coordinate safety and other traffic programs.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-078 DIRECTOR, EMPLOYMENT SERVICES (government ser.)
Administers employment service program: Plans and executes policies and procedures to provide statewide employment services under authority of federal and state regulations. Coordinates local office operations with staff services, such as counseling, testing, job analysis, farm placement, recruitment and staff training, and human resource development to achieve program objectives. Negotiates agreements with other state agencies to provide assistance in cooperative projects. Reviews operating reports to determine effectiveness of program. Attends conferences with government officials, employers, labor leaders, and other parties to secure assistance in formulating policies for new or ongoing programs.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-082 DIRECTOR, MEDICAL FACILITIES SECTION (government ser.)
Administers activities of state department of hospital licensing and construction: Directs inspection of public and private hospitals, nursing homes, diagnostic centers and similar facilities in operation or under construction. Recommends or disapproves licensing in accord with findings, state laws, and established policy. Prepares and coordinates state plan for construction of medical facilities, in accordance with demonstrated need, available funds, and availability of medical service personnel. Prepares and enforces standards for operation of medical facilities. Confers with medical service personnel, representative of local medical societies, and other interested parties to implement policies and programs in accordance with public interest. May administer activities of state-operated clinics and hospitals.
GOE: 11.10.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-086 DIRECTOR, MERIT SYSTEM (government ser.)
Directs administration of statewide merit system qualifying examinations: Formulates policies and procedures on recruitment, testing, placement, classification, and salary administration. Confers with school officials and superintendents of public buildings to arrange for space to conduct examinations. Verifies applicability and authenticity of examination and inventories examination materials to prevent errors and unauthorized use. Effects liaison with public officials, employee groups, and general public to promote program objectives. May proctor examinations and participate in oral interviews with applicants.
GOE: 11.05.03 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 77

188.117-090 DIRECTOR, REVENUE (government ser.)
Administers state revenue program for collection of taxes, such as income, inheritance, gasoline, and sales: Devises and implements policies and procedures for collecting taxes and auditing accounts in compliance with state statutory regulations. Schedules and holds hearings to resolve delinquency and other tax violations. Reviews reports and prepares revenue estimates for legislative budgetary action. Disseminates tax information to public, using radio, television, and other media.
GOE: 11.05.03 STRENGTH: L GED: R6 M5 L5 SVP: 8 DLU: 77

188.117-094 DIRECTOR, UNEMPLOYMENT INSURANCE (government ser.)
Administers unemployment insurance program: Interprets policies, rules, and regulations under authority of governing commission and federal and state legislation. Plans and coordinates staff activities, such as maintenance of records of employer contributions, employee wages, benefit payment, administrative expenditures, and related matters. Directs investigations of employer liability, payroll records, and employee coverage. Prepares and releases operating reports. Attends conferences with government officials, employers, labor leaders, and other parties to promote support for program objectives. Recommends changes in legislation affecting program.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-098 DISTRICT CUSTOMS DIRECTOR (government ser.)
Directs and coordinates administrative activities of customs collection district and negotiates with interested parties to enforce federal customs laws and collections: Prepares, reviews, and submits reports of district's activities to customs office and other government agencies. Represents Bureau of Customs in meetings with individuals, representatives of private industry, government agencies, and in court. Recommends and approves personnel appointments, promotions, transfers, and reassignments within district. Directs submission of customs receipts and preparation of accounts as required by law and procedures of Bureau.
GOE: 11.10.04 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-102 ECONOMIC DEVELOPMENT COORDINATOR (government ser.)
Directs economic development planning activities for city, state, or region: Negotiates with industry representatives to encourage location in area. Directs activities, such as research, analysis, and evaluation of technical information to determine feasibility and economic impact of proposed expansions and developments. Confers with governmental officials to effect changes in local policies or ordinances discouraging effective development.
GOE: 11.05.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

188.117-106 FOREIGN-SERVICE OFFICER (government ser.)
Represents interests of United States Government and Nationals by conducting relations with foreign nations and international organizations; protecting and advancing political, economic, and commercial interests overseas; and rendering

nal services to Americans abroad and to foreign nationals traveling to the
d States: Manages and administers diplomatic or consular post abroad.
eys views of U.S. Government to host government. Reports political and
developments in host country to superior or Secretary of State. Analyzes
economic data, trends, and developments in host country or region. Ad-
s trade by alerting U.S. business personnel to potential foreign trade and
ment opportunities. Provides medical, legal, familial, and traveling advice
ssistance to U.S. citizens. Issues passports to Americans and visas to for-
s wishing to enter the United States. Offers notarial services and assist-
on benefit programs to Americans and eligible foreigners. Determines eli-
y of persons to be documented as U.S. citizens. Takes testimony abroad
se in U.S. Courts. May negotiate agreements between host and United
Government. May recommend how American policy can help improve
n economic conditions. May coordinate American economic assistance
ams. May serve in Washington, D.C. as counterpart to outstationed col-
es, relating foreign service administrative needs to Department of State or
d States Information Agency. May disseminate information overseas about
nited States and its policies by engaging in cultural and educational inter-
through United States Information Agency. May be designated according
sic field of specialization as Administrative Officer (government ser.);
nercial Officer (government ser.); Consular Officer (government ser.);
al Affairs Officer (government ser.); Diplomatic Officer (government
Economic Officer (government ser.). May be designated: Information Of-
government ser.); Political Officer (government ser.); Public Affairs Offi-
overnment ser.).
11.09.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

7-110 HOUSING-MANAGEMENT OFFICER (government ser.)
ects and coordinates activities concerned with providing advice and tech-
ssistance to housing authorities and evaluating housing management pro-
Develops policy and standards for guidance of local housing organiza-
in establishing and maintaining uniformity in operation of housing
ts. Studies operation of housing projects, notes trends and needs, and
tes efficiency of housing programs. Prepares regulations, procedures, and
tions for operation of housing projects based on analysis of operations.
ves or disapproves requests for waivers to policies, standards, and proce-
Consults with and advises housing personnel of public and private
concerning needed improvements in housing operations. Advises and as-
MANAGERS, HOUSING PROJECT (profess. & kin.) and staffs of local
g authorities concerning problems, such as eliminating excess costs, im-
g livability features and maintenance care of dwelling units, making more
ve use of project facilities and community services, and promoting satis-
relationships among tenants, housing project personnel, public officials,
ivate agencies. Leads public meetings and serves on committees to stimu-
forts of national, local, and private housing agencies and to emphasize
g needs of military personnel and low-income families.
11.05.03 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 77

7-114 MANAGER, CITY (government ser.) alternate titles: manager, county; manager, town
cts and coordinates administration of city or county government in ac-
ce with policies determined by city council or other authorized elected
ls: Appoints department heads and staffs as provided by state laws or
rdinances. Supervises activities of departments performing functions such
ection and disbursement of taxes, law enforcement, maintenance of pub-
lth, construction of public works, and purchase of supplies and equip-
Prepares annual budget and submits estimates to authorized elected offi-
or approval. Plans for future development of urban and nonurban areas
vide for population growth and expansion of public services. May rec-
d zoning regulation controlling location and development of residential
mmercial areas [URBAN PLANNER (profess. & kin.)]. May perform
of one or more city or county officials as designated by local laws.
11.05.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

7-118 POLICE COMMISSIONER I (government ser.)
inisters municipal police department: Participates in decisions of Board
hase supplies and equipment; to administer funds and care for property
artment; to set number and salary of officers and employees of depart-
o modify classification standards of service; to hear and act on charges
mpetence, disobedience, and dishonesty filed against members of force;
int, assign to duty, or transfer members of force; to establish rules and
ions for department; and to perform other necessary functions. Receives
s upon recommendations of officers in service and of committees ap-
by Board to whom implementation of Board responsibilities may be
ed.
04.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

7-122 PROPERTY-UTILIZATION OFFICER (government ser.) alternate titles: business-service officer; manager, surplus property
dinates property procurement and maintenance activities, and negotiates
presentatives to effect property transfers and sales, rental, and leasing
s for government agency: Reviews property-related data, such as inven-
budgets, planning reports, vendor brochures, and excess property and
request reports, to obtain information on property status, needs, and
lity. Writes, fills out, and reviews bids, contract specifications, purchase
and estimates, and transfer forms to effect property transactions. Contacts vendors and potential users, and inspects and inventories acquired and transferred property through visits to government installations and vendor sites. Negotiates and confers with administrators, vendors, or users to effect agreement on property transfer details, such as price, model, packaging, transportation, land boundaries, or building layout. Authorizes expenditures within specified limits for purchases of supplies and equipment, equipment repair and maintenance, and alterations to premises. Fills government agency or other qualifying organization requests from surplus inventories, considering factors such as donation criteria, actual needs, and justification. Prepares plans, standards, and specifications for building and equipment maintenance, repair, and inspection. May be designated according to property involved as Real-Estate-Utilization Officer (government ser.); State-Surplus-Commodity-And-Property Representative (government ser.).
GOE: 11.12.02 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

188.117-126 WELFARE DIRECTOR (government ser.) alternate titles: director of social services

Directs administration of public welfare program in county or city, in conformity with policies of welfare board and availability of funds: Consults with members of welfare board to plan activities and expenditures. Coordinates, directly or through subordinates, activities of staff engaged in investigating and counseling welfare claimants and in processing welfare claims. Participates in discussions with community leaders and other interested parties to improve conditions of welfare recipients and to coordinate public assistance programs with efforts of religious and charitable organizations. Coordinates distribution of government surplus commodities in conformity with federal standards. Prepares welfare budget and adjusts welfare services in accordance with available funds. In smaller communities may interview welfare recipients, assist them in resolving personal or financial problems, and perform related activities [CASEWORKER (social ser.)]. May be designated according to jurisdiction as County Director, Welfare (government ser.).
GOE: 11.07.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.117-130 COURT ADMINISTRATOR (government ser.)

Administers nonjudicial functions of court: Coordinates activities such as jury selection, notification, and utilization, case scheduling and tracking, personnel assignment, and space and equipment allocation to accomplish orderly processing of court cases. Investigates problems that affect case flow and recommends or implements corrective measures. Compiles and analyzes data on court activity to monitor management performance and prepare activity reports. Conducts research to analyze current and alternative personnel, facilities, and data management systems and consults with judicial staff of court to evaluate findings and recommendations. May oversee accounting of revenues and expenditures and prepare and justify budget. May resolve questions and complaints raised by court personnel, attorneys, and members of other organizations and public.
GOE: 11.05.03 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

188.117-134 DIRECTOR, REGULATORY AGENCY (government ser.)

Directs agency, division, or major function of agency or division charged with investigating regulated activities to assure compliance with federal, state, or municipal laws: Interprets and clarifies federal, state, or municipal laws. Represents agency at meetings, conventions, and other forums to promote and explain agency objectives. Consults with other governmental agencies, business community, and private organizations to resolve problems. Plans and directs surveys and research studies to ensure effective program operation and to establish or modify standards. Recommends changes in legislation and administrative procedures to reflect technological and ecological changes and public sentiment. Confers with legislative liaison individuals or committees to develop legislative bills involving inspection procedures and to obtain wording for proposed inspection codes. Prepares or directs preparation and release of reports, studies, and other publications relating to program trends and accomplishments. Reviews and evaluates work of MANAGER, REGULATED PROGRAM (government ser.) 168.167-090 through conversations, meetings, and reports. Prepares or directs preparation of budget requests. May be required to testify in court or before control or review board. May be designated according to function or agency administered as Administrator, Pesticide (government ser.); Administrator, Structural Pest Control (government ser.); Agricultural Commodity Grading Supervisor (government ser.); Director, Reactor Projects (government ser.); Director, Transportation Utilities Regulation (government ser.); Director, Weights And Measures (government ser.); Manager For Health, Safety, And Environment (government ser.); Petroleum Products Inspection Supervisor (government ser.).
GOE: 11.05.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 86

188.137-010 SUPERVISOR (government ser.)

Supervises and coordinates activities of personnel engaged in carrying out departmental objectives in unit of governmental agency, utilizing knowledge of agency purposes, rules, regulations, procedures, and practices: Reviews unit's work load, schedules, personnel assignments, status of on-going work, projects, and available personnel for work assignment in order to plan unit activities. Assigns specific duties to personnel, such as enforcing of agency rules and regulations or government laws and codes; conducting investigations or research; writing technical, informative, or operational reports and papers; or working on special projects, considering individual's knowledge and experience. Reviews reports, papers, and other records prepared by personnel for clarity, completeness, accuracy, and conformance with agency policies. Routes approved reports and records to superior for action. Coordinates work activities of unit with other

units, sections, or agencies to prevent delays in actions required or to improve services to public. Plans and conducts, or arranges for, indoctrination and training of personnel. Approves leave requests, evaluates personnel performance, and initiates disciplinary actions. Interviews job applicants on eligibility lists and prepares individual recommendations for consideration by superior. May be designated according to agency unit supervised or purpose of unit.
GOE: 11.05.03 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 80

188.167-010 APPRAISER (government ser.) alternate titles: deputy assessor

Appraises real and personal property to determine fair value and assesses taxes in accordance with prescribed schedules: Inspects property and considers factors such as current market value, location of property, and building or replacement costs to make property appraisal. Computes amount of tax to be levied, using applicable tax tables, and writes reports of determinations for public record. May interpret laws, formulate policies, and direct activities of assessment office. May be designated according to type of property assessed as Appraiser, Aircraft (government ser.); Appraiser, Auditor (government ser.); Appraiser, Boats And Marine (government ser.); Appraiser, Buildings (government ser.); Appraiser, Land (government ser.); Appraiser, Oil And Water (government ser.); Appraiser, Personal Property (government ser.); Appraiser, Real Estate (government ser.); Appraiser, Timber (government ser.).
GOE: 11.06.03 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

188.167-014 ASSESSOR-COLLECTOR, IRRIGATION TAX (government ser.) alternate titles: appraiser, irrigation tax

Directs activities of workers engaged in assessing and collecting property tax levies for operation and maintenance of irrigation system: Supervises and participates with workers in determining value of municipal and rural properties within irrigation district. Directs activities of clerical workers engaged in preparing tax bills, collecting taxes, and keeping tax rolls, maps, and records of taxes levied and paid. Authorizes addition of penalties on delinquent tax accounts. Draws up and issues certificate of sale in favor of water district to satisfy unpaid taxes. Interviews property owners to resolve complaints, and answer questions concerning taxes and appraisal values.
GOE: 11.05.03 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

188.167-018 CHIEF WARDEN (government ser.)

Coordinates activities of FISH AND GAME WARDENS (government ser.) and other personnel within state or conservation district: Determines effectiveness of training administered by others, according to review of personnel records and supervisory evaluations. Coordinates special enforcement campaigns, such as rabies control activities and investigations into cause of excessive fish mortality. Assigns personnel to enforcement territories or to aid other divisions in seasonal conservation activities. Prepares public information materials, delivers speeches, and confers with representatives of sports groups to promote conservation activities. Answers correspondence concerning enforcement or other activities. Keeps records of hunting accidents, drownings, hunting law violations, and related data. Prepares budget for submission to state legislature.
GOE: 11.05.03 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 77

188.167-022 DIRECTOR OF VITAL STATISTICS (government ser.) alternate titles: chief of vital statistics

Directs collection, recording, and tabulation of vital statistics and implementation of special statistical studies required by state government: Directs activities of workers engaged in compiling statistical data, such as births, deaths, marriages, incidence of various diseases, and supplementary material. Formulates procedures for converting raw data into statistical form, according to knowledge of accepted statistical analysis procedures. Conducts special studies on request from legislative officials, private organizations, and other interested groups, by defining dimensions of study, size of statistical sampling, data collection procedures, and methods of presenting findings. Develops and implements, through subordinates, procedures for registration and certification of births, marriages, and similar occurrences in communities throughout state.
GOE: 11.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.167-026 DIRECTOR, CLASSIFICATION AND TREATMENT (government ser.) alternate titles: assignment officer; correctional officer

Directs prison rehabilitation programs and assignment of inmates under direction of DIRECTOR, INSTITUTION (any industry): Plans and coordinates programs for providing educational, recreational, and spiritual services; supplying medical, dental, and psychiatric treatment; and meeting other needs of inmates in conformity with established policies of correctional institution. Administers and scores intelligence, aptitude, and other standard tests to evaluate inmates' suitability for rehabilitation. Reviews case reports of prisoners to recommend parole, vocational training, transfer, psychiatric treatment, custody status, or other disposition according to findings. Directs workers engaged in maintenance of inmate records. Confers with other members of prison staff to coordinate all program activities in conformity with prison routine and security requirements. Prepares and delivers speeches to promote understanding of prison services and characteristics of offenders.
GOE: 11.07.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

188.167-030 DIRECTOR, FINANCIAL RESPONSIBILITY DIVISION (government ser.)

Directs administration of state financial responsibility law requiring deposit of surety bonds by uninsured motorists involved in highway accidents: Coordinates activities of personnel engaged in compiling and analyzing personal injury and property damage reports and related data to determine applicability of law and amount of surety deposit required for compliance. Formulates or interprets regulations and policies for implementation by staff and to supply information to attorneys and litigants in accident cases. Coordinates activities of workers engaged in preparing receipts for surety deposits, making disbursements and refunds, and forwarding deposits to appropriate state office. Notifies motor vehicle licensing officials of motorists' failure to meet requirements of law to facilitate license revocation or other official action. Recommends changes in law to remove inequities and maintain surety requirements consistent with trends in accident statistics and jury damage awards.
GOE: 11.05.03 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

188.167-034 DIRECTOR, SAFETY COUNCIL (government ser.)

Directs activities of State Highway Safety Council to promote driver education and safety of roads and vehicles: Directs workers engaged in compilation of traffic safety statistics, such as fatalities and injuries, causes of accidents, and characteristics of drivers involved in accidents. Evaluates statistics according to accepted statistical analysis procedures and formulates plans for improving driver education and highway engineering. Prepares or directs workers engaged in preparation of pamphlets, advertisements, radio commercials, and other educational materials concerned with highway safety. Delivers speeches and participates in public forums and broadcasts to educate motorists in safety habits. Confers with officials of other departments, such as state police and highway engineering and with national safety leaders to coordinate program activities. Recommends changes in legislation and highway user regulations to improve safety conditions.
GOE: 11.05.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.167-038 DIRECTOR, SECURITIES AND REAL ESTATE (government ser.)

Directs activities of state department governing securities and real estate transactions: Interprets laws regarding transactions and recommends action by law enforcement agencies or appropriate state board. Investigates applications for registration of securities sales. Investigates complaints of fraudulent or irregular transactions and recommends legal action if necessary. Prepares agenda and participates in meetings with Securities Commission and Board of Real Estate Examiners to discuss pending cases and present or future problems. Directs workers engaged in publishing manuals, bulletins, and reports for information of dealers, brokers, and public. Conducts educational classes and approves written examinations required of applicants for registration and licenses.
GOE: 11.10.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

188.167-042 DIRECTOR, STATE-ASSESSED PROPERTIES (government ser.)

Directs local or statewide program of real estate and property assessment equalization to facilitate adjustments in tax base and rates resulting from changes in property values: Devises procedures for compiling, computing, and analyzing valuation data according to knowledge of statistical principles and accepted valuation theories [VALUATION ENGINEER (profess. & kin.)]. Assigns APPRAISERS (government ser.) to interview industrial, commercial, and residential property owners and inspect properties in prescribed areas to obtain current valuation data. Directs personnel engaged in assembling and analyzing data into statistical groupings to facilitate comparisons with previous assessments. Prepares or directs preparation of reports and graphs to illustrate findings. Derives assessment equalization factors from computed data according to accepted valuation principles and knowledge of real estate market relationships. Allocates expected revenue among state tax districts according to computations and departmental regulations. Recommends changes in valuation procedures, tax rates, and tax policy to appropriate officials. Represents tax commission at meetings of boards of equalization, at tax appeal hearings, and in court.
GOE: 11.05.03 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

188.167-046 DISTRICT CUSTOMS DIRECTOR, DEPUTY (government ser.)

Directs and coordinates activities of customs collection district personnel and cooperates with officials of other government agencies to enforce federal customs laws and collections, under supervision of DISTRICT CUSTOMS DIRECTOR (government ser.): Dictates correspondence and prepares or verifies district reports. Answers inquiries of confidential or technical nature. Confers with officials of other government agencies to effect mutual cooperation in enforcement activities. Reviews civil case reports on customs violations to determine disposition. Schedules training and work assignments. Serves as consultant to DISTRICT CUSTOMS DIRECTOR (government ser.).
GOE: 11.10.04 STRENGTH: S GED: R5 M5 L5 SVP: 7 DLU: 77

188.167-050 ELECTION ASSISTANT (government ser.) alternate titles: election supervisor

Directs compliance with official election procedures throughout state and recommends procedural changes to improve efficiency and equity of voting: Participates in training election workers and advising local election officials prior to elections. Directs workers engaged in printing ballots and conducting of censuses, elections, and referendums. Studies election laws in other states and jurisdictions to recommend changes in procedures governing registration, filing, voting, reporting, and other requirements. Alters official legislative procedures as manual recommendations are accepted by legislature.
GOE: 11.05.03 STRENGTH: S GED: R5 M3 L4 SVP: 7 DLU: 77

167-054 FEDERAL AID COORDINATOR (government ser.)
oordinates project activities to ensure administrative efficiency and compli-
with federal laws, regulations, and standards and directs disbursement of
al funds and administration of federal projects to implement fish and wild-
onservation programs in state: Analyzes conservation problems and needs
ate to recommend or authorize establishment of conservation programs.
ers with conservation officials to provide coordination of project and liai-
between federal and state authorities. Reviews accounting records and au-
zes reimbursement of project funds to state. Prepares budget estimates for
ties and projects.
11.05.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

67-058 MANAGER, OFFICE (government ser.)
nages local, district, or regional office of governmental agency or depart-
to provide public or other individuals with designated services, or imple-
laws, codes, programs, or policies prescribed by legislative bodies: Re-
official directives and correspondence to ascertain such data as changes
ribed in agency programs, policies, and procedures, and new assignments
ponsibilities delegated to office. Confers with subordinate supervisory per-
l and reads staff reports and records to obtain data, such as status of on-
work or projects, cases and investigations pending, indications of prob-
conclusions, and projected completion dates. Plans office activities and
projects and assigns unit supervisory personnel responsibility for carrying
nd completing specific projects and duties. Coordinates activities of var-
office units in order to provide designated functions or services with mini-
delay and optimum efficiency and accuracy. Informs supervisory person-
changes or interpretations of laws, codes, programs, policies, or proce-
Conducts staff meetings for dissemination of pertinent information.
and evaluates performance of supervisory personnel and reviews per-
nce reports prepared on staff. Prepares reports on office activities required
ency. May be designated according to type of office and agency or depart-
managed or by type of work performed by office staff.
11.05.03 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 79

67-062 PARK SUPERINTENDENT (government ser.) alternate titles: supervisory park ranger
ordinates activities of PARK RANGERS (government ser.) and other
rs engaged in development, protection, and utilization of national, state,
ional park: Tours areas to assess development possibilities and determine
enance needs. Prepares estimates of costs to plan and provide or improve
nd wildlife protection, recreation, and visitor safety. Selects, trains, and
ises PARK RANGERS (government ser.). Directs workers engaged in
activities and fire suppression in park area. Investigates accidents, van-
, theft, poaching, and other violations and presents evidence before court
ignated legal authority. Answers letters of inquiry and addresses visitors
vic organizations to inform public of park regulations and available rec-
nal facilities, and to point out historical, and scenic features of park. Pre-
reports of area activities. May maintain records of attendance, permits is-
and monies received.
04.01.01 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

67-066 POSTMASTER (government ser.)
rdinates activities of workers engaged in postal and related work in as-
post office: Organizes and supervises directly, or through subordinates,
ctivities as processing incoming and outgoing mail; issuing and cashing
orders; selling stamps, bonds and certificates; and collecting box rents
ure efficient service to patrons. Resolves customer complaints and in-
public of postal laws and regulations. Confers with suppliers to obtain
or proposed purchases, requisitions supplies, and disburses funds as speci-
law. Prepares and submits detailed and summary reports of post office
es to designated superior. Selects, trains, and evaluates performance of
yees and prepares work schedules. May perform or participate in post of-
tivities depending on size of post office. May plan and implement labor
ts program. May confer with employees to negotiate labor disputes.
11.05.03 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

7-070 RELOCATION COMMISSIONER (government ser.) alternate titles: commissioner of relocation services
cts relocation program to assist individuals and businesses affected by
nation proceedings necessary to public improvement programs, such as
y or flood-control projects: Confers with individuals and businesses to
in necessary action. Analyzes housing data to determine availability, val-
nds, and existing rental and zoning patterns. Coordinates plans to effect
ion of homes, businesses, or other property affected by improvement.
s program budget. May arrange moving of houses, fences, and other im-
ents. May arrange drilling of wells and construction of foundations for
d residents.
11.12.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 79

7-074 REVENUE OFFICER (government ser.)
stigates and collects delinquent federal taxes and secures delinquent tax
from individuals or business firms according to prescribed laws and reg-
: Investigates delinquent tax cases referred by agency investigators, as
leads found in newspapers, trade journals, and public stockbroker
. Confers with individuals or business representatives by telephone, cor-
dence, or in person to determine amount of delinquent taxes and enforce
on. Examines and analyzes tax assets and liabilities to determine solution for resolving tax problem. Selects appropriate remedy for delinquent taxes when necessary, such as part-payment agreements, offers of compromise, or seizure and sale of property. Directs service of legal documents, such as subpoenas, warrants, notices of assessment, and garnishments. Recommends criminal prosecutions and civil penalties when necessary. Writes reports of determinations and actions taken for departmental files. (Workers who examine and audit tax records to determine tax liabilities are defined under title REVENUE AGENT (government ser.).
GOE: 11.10.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

188.167-078 ROADS SUPERVISOR (government ser.)

Directs construction and maintenance of roads or streets within jurisdiction. Assures that work is in conformity with federal and state standards, accepted principles of design and engineering, and available funds. Addresses meetings of realtors, citizens, members of financial community, and other interested parties to explain plans and activities of department.
GOE: 05.02.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

188.167-082 SECRETARY OF STATE (government ser.)

Directs and coordinates activities of Secretary of State office to assist Executive and Legislative Branches of State Government under authority of state statutory and constitutional provisions: Directs activities of workers engaged in preserving records of official acts performed by Governor and Legislative bodies. Directs distribution of laws, resolutions, and other official state documents. Examines corporate articles or corporate statements of qualification to approve or disallow petitions for incorporation, amendments to corporate articles, dissolutions, and agreements of merger or consolidation. Administers Uniform Commercial Code to protect secured interest of retail merchants and lending institutions. Approves licensing of notaries public. Receives for processing, recording, and filing documents, such as deeds to state lands, claims to fraternal names and insignia, manuscripts, oaths of office, organization and boundaries of public districts, administrative rules and regulations adopted by state agencies, and statements of trust receipt financing. Directs activities involved in preserving historical documents and public records in state archives. May interpret and enforce election laws. May tabulate and certify accuracy of election returns.
GOE: 11.05.03 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

188.167-086 SECTIONAL CENTER MANAGER, POSTAL SERVICE (government ser.)

Directs and coordinates operational, management, and supportive services of associate post offices within district area known as sectional center: Plans and implements facility programs in accordance with regional and national policy and to meet established objectives for providing efficient and effective postal services. Approves operating budgets of associate post offices. Directs such supportive services as personnel administration, finance, safety, and plant and vehicle maintenance. Participates in selecting, training, and removing POSTMASTERS (government ser.) and top level management of associate postal units. Provides postal information to news media, business representatives, and local governmental agencies. May direct and coordinate operations of various sectional centers within a district and be designated District Manager, Postal Service (government ser.).
GOE: 11.05.03 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

188.167-090 SPECIAL AGENT, CUSTOMS (government ser.) alternate titles: criminal investigator, customs

Investigates persons, common carriers, and merchandise, arriving in or departing from the United States, to protect government and business interests and prevent irregular or prohibited importing and exporting: Develops sources of information to complete investigations of customs violations. Examines private and public records, interrogates and investigates persons, and uses technical and scientific devices to establish facts, verify data, and secure legal evidence. Determines investigative and arrest or seizure techniques to be used and directs activities of assisting agents. Analyzes and assembles facts and evidence. Seizes contraband, vehicles, and air or sea craft suspected of carrying smuggled merchandise. Arrests violators of customs and related laws. Institutes civil and criminal prosecutions. Investigates applications for duty refunds. Petitions for remission or mitigation of penalties. Testifies in administrative and judicial proceedings. Coordinates activities with other federal or state agencies to enforce customs and related laws. May be required to carry weapon.
GOE: 04.01.02 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 77

188.167-094 SUPERINTENDENT, INDUSTRIES, CORRECTIONAL FACILITY (government ser.)

Directs and coordinates vocational work programs in governmental correctional institution: Confers with administrative and supervisory staff of prison to schedule work programs consistent with security regulations, maintenance needs, and established vocational policy. Interviews and assigns inmates to vocational rehabilitation programs or work details in conformity with their education, previous skills, and available facilities of institution. Plans production assignments to meet output requirements and vocational instruction schedule. Establishes production standards and plans layout according to capacity of equipment, qualifications of staff, and procurement specifications of customers for prison-made products. Inspects equipment and facilities to recommend maintenance and replacement of obsolete machinery. Inventories and requisitions supplies to maintain efficient production. May prepare design drawings for production, according to customer specifications. May negotiate with purchasers to conclude contracts for manufactured products. May evaluate ade-

quacy of vocational instruction and recommend changes in established curriculum, policies, and standards.
GOE: 11.07.01 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

188.167-098 SUPERINTENDENT, SANITATION (government ser.) alternate titles: director, sanitation bureau

Plans and directs establishment of collection routes and assignment of personnel and equipment. Coordinates activities of workers concerned with sewage treatment, recycling or incineration plants, and landfill activities of disposal sites. Conducts field inspections to evaluate efficiency of sanitation program and to determine that residents are adhering to regulations. Notifies individuals of violations and initiates actions to obtain compliance with regulations. Supervises workers engaged in investigation of complaints and collection of delinquent accounts, where user assessments are imposed. Supervises persons engaged in preparation of cost and operational reports and compiles budget estimates for review and approval of authorities. Confers with engineering and other technical personnel to advise and assist in development, design, and installation of sanitation facilities. Prepares material such as handbills or press releases to keep public informed of changes in regulations. May direct one phase of sanitation services, as recycling, incineration, or sewage treatment, and be designated Superintendent, Refuse Disposal (government ser.); Superintendent, Sewage-Treatment (government ser.).
GOE: 05.02.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

188.167-102 TRAFFIC-SAFETY ADMINISTRATOR (government ser.)

Directs traffic-safety program of municipality in accord with accident and traffic data compiled by subordinates. Plans and directs safety campaigns and coordinates activities of auxiliaries such as volunteer school-crossing personnel and motorist groups pledged to safety. Administers tests to determine driving proficiency and attitude of municipal employees. Keeps files of accident reports and maps accident locations to facilitate corrective measures.
GOE: 11.07.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

188.167-106 UNCLAIMED PROPERTY OFFICER (government ser.)

Directs activities of state unclaimed property disposal office: Directs, through subordinates, search for owners of unclaimed property, such as abandoned automobiles, cash, or property of deceased individuals leaving no known heirs. Receives and directs processing of recovery claims, according to results of investigation or other evidence of ownership. Authorizes deposit of unclaimed property in trust fund or arranges for public auctions, depending upon nature of property.
GOE: 11.12.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

188.167-110 PLANNER, PROGRAM SERVICES (government ser.)

Conducts studies, prepares reports, and advises public and private sector administrators on feasibility, cost-effectiveness, and regulatory conformance of proposals for special projects or ongoing programs in such fields as transportation, conservation, or health care: Consults with administrators or planning councils to discuss overall intent of programs or projects, and determines broad guidelines for studies, utilizing knowledge of subject area, research techniques, and regulatory limitations. Reviews and evaluates materials provided with proposals, such as environmental impact statements, construction specifications, or budget or staffing estimates, to determine additional data requirements. Conducts field investigations, economic or public opinion surveys, demographic studies, or other research to gather required information. Organizes data from all sources, using statistical methods to ensure validity of materials. Evaluates information to determine feasibility of proposals or to identify factors requiring amendment. Develops alternate plans for program or project, incorporating recommendations, for review of officials. Maintains collection of socioeconomic, environmental, and regulatory data related to agency functions, for use by planning and administrative personnel in government and private sectors. Reviews plans and proposals submitted by other governmental planning commissions or private organizations to assist in formulation of overall plans for region.
GOE: 11.03.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 86

188.217-010 COMMISSIONER OF CONCILIATION (government ser.)

Conducts conference of employer and employee representatives to analyze and resolve labor disputes, as directed by federal government: Contacts parties in labor controversy and arranges meeting. Compiles all information on disagreement and determines points at issue, according to knowledge of labor, business, and government responsibilities under law and precedent. Attempts reconciliation of opposing claims and demands by ascertaining and exposing facts, by suggesting concessions, or by proposing adoption of new procedures. Prepares reports of cases, findings, and recommendations for resolving issues.
GOE: 11.04.03 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

189 MISCELLANEOUS MANAGERS AND OFFICIALS, N.E.C.

This group includes miscellaneous managers and officials, not elsewhere classified.

189.117-010 ASSOCIATION EXECUTIVE (profess. & kin.)

Directs and coordinates activities of professional or trade association in accordance with established policies to further achievement of goals, objectives, and standards of profession or association: Directs research surveys, compilation, and analysis of factors, such as average income, benefits, standards, and common problems of profession, for presentation to association committees for action. Confers with officers to ensure that membership roster is current and complete and that members receive equal treatment regarding services and information provided by Board. Directs or participates in preparation of educational and informative materials for presentation to membership or public in newsletters, magazines, news releases, or on radio or television. Provides information and technical assistance to members, clients of members, or public, relating to business operations. Represents association in negotiations with representatives of government, business, labor, and other organizations, and holds news conferences, delivers speeches, and appears before legislative bodies to present association's viewpoints and encourage acceptance of goals and objectives. Oversees finances of Board of Directors, including preparation of long range forecast and monthly and annual budget reports. Plans, develops, and implements new programs and ideas, and confers with committee leaders to evaluate services and recommend methods to promote and increase membership involvement. Directs and coordinates association functions, such as conventions, exhibits, or local or regional workshops, to present membership with committee proposals on goals or objectives, familiarize membership or public with new technology or products, and increase public acceptance of membership objectives. Prepares and updates procedural manual. May conduct investigations on members' professional ethics, competence, or conduct, or financial responsibility of members to enforce quasi-legal standards of membership. May visit members' businesses to maintain goodwill, to encourage greater participation in organization activities, and to offer assistance to businesses experiencing reverses. May be designated according to area of responsibility or activity directed as Director Of Publications (profess. & kin.); Executive Secretary (profess. & kin.); Membership Secretary (profess. & kin.); Representative, Government Relations (profess. & kin.); Research Director (profess. & kin.).
GOE: 11.05.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 88

189.117-014 DIRECTOR, RESEARCH AND DEVELOPMENT (any industry) alternate titles: manager, product development; manager, research and development; manufacturing engineer, chief

Directs and coordinates research and development activities for organizational products, services, or ideologies: Plans and formulates aspects of research and development proposals, such as objective or purpose of project, applications that can be utilized from findings, costs of project, and equipment and human resource requirements. Reviews and analyzes proposals submitted to determine if benefits derived and possible applications justify expenditures. Approves and submits proposals considered feasible to management for consideration and allocation of funds or allocates funds from department budget. Develops and implements methods and procedures for monitoring projects, such as preparation of records of expenditures and research findings, progress reports, and staff conferences, in order to inform management of current status of each project. May recruit, hire, and train department staff, evaluate staff performance, and develop goals and objectives for staff. May negotiate contracts with consulting firms to perform research studies. May specialize in one type of research and be designated Director, Marketing Research and Analysis (profess. & kin); Director, Product Research and Development (profess. & kin.).
GOE: 05.01.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 88

189.117-018 MANAGER, CUSTOMER TECHNICAL SERVICES (profess. & kin.)

Directs and coordinates activities of department in manufacturing establishment concerned with providing customers technical services in conjunction with marketing activities: Coordinates technical liaison services between management, production department, sales department, and customers with newly developed techniques or practices in processing company products, and to inform customers of new types, specifications, and end-uses of products. Confers with production department managers to assist in specific classification of products from quality assurance position, report on new product or process technology of competitors, and to discuss new specifications required by customers. Directs investigation of customer complaints regarding quality, tolerances, specifications, and delivered condition of products. Records, analyzes, and informs concerned personnel of production quality assurance, and sales departments of status and disposition of customer complaints and claims. Negotiates settlement of claims, for which company is responsible, within limits prescribed by management. May survey potential markets for increasing sales.
GOE: 05.02.03 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

189.117-022 MANAGER, INDUSTRIAL ORGANIZATION (any industry) alternate titles: general manager, industrial organization; manager, general; plant superintendent, industrial organization

Directs and coordinates activities of industrial organization to obtain optimum efficiency and economy of operations and maximize profits: Plans and develops organization policies and goals, and implements goals through subordinate administrative personnel. Coordinates activities of divisions or departments, such as operating, manufacturing, engineering, planning, sales, maintenance, or research and development, to effect operational efficiency and economy. Directs and coordinates promotion of products manufactured or services performed to develop new markets, increase share of market, and obtain competitive position in industry. Analyzes division or department budget requests to identify areas in which reductions can be made, and allocates operating budget. Confers with administrative personnel, and reviews activity, operating,

eports to determine changes in programs or operations required. Di-
ration of directives to division or department administrator outlining
gram, or operations changes to be implemented. Promotes organiza-
istry, manufacturing or trade associations. Workers are usually iden-
ding to industry in which employed, such as petroleum production
iron and steel, electrical equipment; type of organization, such as
otor or water transportation; or type of product, such as paper, chem-
tics products.
5.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 86

6 PRESIDENT (any industry)

velops, and establishes policies and objectives of business organiza-
ordance with board directives and corporation charter: Confers with
ficials to plan business objectives, to develop organizational policies
te functions and operations between divisions and departments, and
responsibilities and procedures for attaining objectives. Reviews ac-
s and financial statements to determine progress and status in attain-
es and revises objectives and plans in accordance with current con-
ects and coordinates formulation of financial programs to provide
new or continuing operations to maximize returns on investments,
ease productivity. Plans and develops industrial, labor, and public
licies designed to improve company's image and relations with cus-
ployees, stockholders, and public. Evaluates performance of execu-
mpliance with established policies and objectives of firm and con-
attaining objectives. May preside over board of directors. May
airman of committees, such as management, executive, engineering,

.01 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 89

0 PROJECT DIRECTOR (profess. & kin.) alternate titles: project manager

ects, and coordinates activities of designated project to ensure that
jectives of project are accomplished within prescribed time frame
parameters: Reviews project proposal or plan to determine time
ing limitations, procedures for accomplishing project, staffing re-
and allotment of available resources to various phases of project.
work plan and staffing for each phase of project, and arranges for
or assignment of project personnel. Confers with project staff to
splan and to assign duties, responsibilities, and scope of authority.
coordinates activities of project personnel to ensure project pro-
schedule and within prescribed budget. Reviews status reports pre-
oject personnel and modifies schedules or plans as required. Pre-
t reports for management, client, or others. Confers with project
provide technical advice and to resolve problems. May coordinate
ities with activities of government regulatory or other governmental
e PROJECT ENGINEER (profess. & kin.) 019.167-014 for engi-
ects.
.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 81

VICE PRESIDENT (any industry)

d coordinates activities of one or more departments, such as engi-
erations, or sales, or major division of business organization, and
dministrative officer in formulating and administering organization
ticipates in formulating and administering company policies and de-
g range goals and objectives. Directs and coordinates activities of
or division for which responsibility is delegated to further attain-
ls and objectives. Reviews analyses of activities, costs, operations,
data to determine department or division progress toward stated
jectives. Confers with chief administrative officer and other admin-
sonnel to review achievements and discuss required changes in
ectives resulting from current status and conditions. May perform
RESIDENT (any industry) 189.117-026 during absence. May serve
of management committees on special studies.
02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 88

USER REPRESENTATIVE, INTERNATIONAL AC-COUNTING (profess. & kin.)

tivities of information systems group engaged in designing, devel-
ementing, and maintaining worldwide integrated finance and ac-
stem utilized by multinational organization: Studies and analyzes
proposal, confers with corporate officials to obtain details of gen-
d obtains systems requirements from corporate and international ac-
management personnel to compile raw data for plan development,
thods and procedures for project accomplishment, applying knowl-
gn monetary and tax systems and international accounting conven-
es specifications documenting systems and project requirements, in-
frame, staffing, activity schedule, and methods and procedures. In-
national finance and accounting policies and procedures to provide
ance to others engaged in systems design and coding. Oversees en-
rce data and programs into computer, analyzes output to identify
nature of problems, and orders indicated corrections to design or
ites procedures manuals for users, reflecting and adapting individ-
g conventions and monetary and tax systems into overall inte-
. Prepares training plan and trains user staff prior to implementa-
em. Edits and audits financial and accounting reports to identify
nstalled system and initiates corrective measures.
02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 86

189.117-042 DIRECTOR, QUALITY ASSURANCE (profess. & kin.) alternate titles: director, product assurance

Participates, as member of management team, in formulating and establishing organizational policies and operating procedures for company and develops, implements, and coordinates, through support staff and lower echelon managers, product assurance program to prevent or eliminate defects in new or existing products: Analyzes, evaluates, and presents information concerning factors, such as business situations, production capabilities, manufacturing problems, economic trends, and design and development of new products for consideration by other members of management team. Suggests and debates alternative methods and procedures in solving problems and meeting changing market opportunities. Cooperates with other top management personnel in formulating and establishing company policies, operating procedures, and goals. Develops initial and subsequent modifications of product assurance program to delineate areas of responsibility, personnel requirements, and operational procedures within program, according to and consistent with company goals and policies. Evaluates contents of reports from product assurance program department heads and confers with top management personnel preparatory to formulating fiscal budget for product assurance program. Conducts management meetings with product assurance program department heads to establish, delineate, and review program organizational policies, to coordinate functions and operations between departments, and to establish responsibilities and procedures for attaining objectives. Reviews technical problems and procedures of departments and recommends solutions to problems or changes in procedures. Visits and confers with representatives of material and component vendors to obtain information related to supply quality, capacity of vendor to meet orders, and vendor quality standards. Confers with engineers about quality assurance of new products designed and manufactured products on market to rectify problems. Reviews technical publications, articles, and abstracts to stay abreast of technical developments in industry.
GOE: 11.05.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

189.117-046 MANAGER, BAKERY (bakery products)

Directs and coordinates activities involved with production, sale, and distribution of bakery products: Determines variety and quantity of bakery products to be produced, according to orders and sales projections. Develops budget for bakery operation, utilizing experience and knowledge of current market conditions. Directs sales activities, following standard business practices. Plans product distribution to customers, and negotiates with suppliers to arrange purchase and delivery of bakery supplies. Implements, through subordinate managerial personnel, policies to utilize human resources, machines, and materials productively. Hires and discharges employees. May train subordinates in all phases of bakery activities. May manage bakery that produces only specialty products, such as bagels or pastries. May manage bakery that sells products to general public. May prepare bakery products.
GOE: 11.05.01 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 86

189.157-010 BUSINESS-OPPORTUNITY-AND-PROPERTY-INVESTMENT BROKER (business ser.; real estate) alternate titles: business investor; property investor

Buys and sells business enterprises or investment property on speculative or commission basis: Reviews trade journals, business opportunity advertisements, or other publications to ascertain business enterprises or investment property up for sale. Investigates financial rating of business, customer appeal for type of merchandise, and desirability of location for type of business, or condition and location of investment property. Estimates cost of improving business or property and potential market value to determine resale value. Purchases business or property on speculative basis or on commission basis for client. Repairs, remodels, or redecorates building; purchases competitive merchandise; and installs sound management practices to improve value of property or business acquisition. Contacts prospective clients through newspaper advertisements or mailing lists. Describes to client selling points of property or business, emphasizing such factors as improvements made and profit potential. Sells business or property to buyer and makes arrangements for escrow and title change. Must be licensed by state.
GOE: 08.01.03 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

189.167-010 CONSULTANT (profess. & kin.)

Consults with client to define need or problem, conducts studies and surveys to obtain data, and analyzes data to advise on or recommend solution, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization: Consults with client to ascertain and define need or problem area, and determine scope of investigation required to obtain solution. Conducts study or survey on need or problem to obtain data required for solution. Analyzes data to determine solution, such as installation of alternate methods and procedures, changes in processing methods and practices, modification of machines or equipment, or redesign of products or services. Advises client on alternate methods of solving need or problem, or recommends specific solution. May negotiate contract for consulting service. May specialize in providing consulting service to government in field of specialization. May be designated according to field of specialization such as engineering or science discipline, economics, education, labor, or in specialized field of work as health services, social services, or investment services.
GOE: 11.01.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

189.167-014 DIRECTOR, SERVICE (retail trade) alternate titles: manager, operating and occupancy; superintendent, nonselling; superintendent, operating

Directs operating and nonselling services, such as building maintenance, warehousing, and payroll, in department store: Controls expenditures for items, such as remodeling and repairing of building, upkeep of elevators and air-conditioning system, and repairing electrical system. Arranges for storage and display space for new merchandise. Acts as liaison for trucking company that delivers merchandise to customers. May hire and train new employees.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

189.167-018 MANAGEMENT TRAINEE (any industry)

Performs assigned duties, under direction of experienced personnel, to gain knowledge and experience required for promotion to management positions: Receives training and performs duties in several departments, such as credit, customer relations, accounting, or sales, to become familiar with line and staff functions, operations, management viewpoints, and company policies and practices that affect each phase of business. Observes experienced workers to acquire knowledge of methods, procedures, and standards required for performance of departmental duties. Workers are usually trained in functions and operations of related departments to facilitate subsequent transferability between departments and to provide greater promotional opportunities. May be required to attend company-sponsored training classes.
GOE: 11.05.02 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 87

189.167-022 MANAGER, DEPARTMENT (any industry) alternate titles: department head; superintendent

Directs and coordinates, through subordinate supervisors, department activities in commercial, industrial, or service establishment: Reviews and analyzes reports, records, and directives, and confers with supervisors to obtain data required for planning department activities, such as new commitments, status of work in progress, and problems encountered. Assigns, or delegates responsibility for, specified work or functional activities and disseminates policy to supervisors. Gives work directions, resolves problems, prepares schedules, and sets deadlines to ensure timely completion of work. Coordinates activities of department with related activities of other departments to ensure efficiency and economy. Monitors and analyzes costs and prepares budget, using computer. Prepares reports and records on department activities for management, using computer. Evaluates current procedures and practices for accomplishing department objectives to develop and implement improved procedures and practices. May initiate or authorize employee hire, promotion, discharge, or transfer. Workers are designated according to functions, activities, or type of department managed.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 89

189.167-026 MEMBERSHIP DIRECTOR (profess. & kin.)

Organizes chapters of fraternal society, lodge, or similar organization and surveys conditions in branches already established: Contacts interested parties to present aims and ideals of organization. Coordinates group efforts in petitioning parent organization for charter and recognition. Advises societies or lodges having financial, organizational, and membership problems.
GOE: 11.09.02 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

189.167-030 PROGRAM MANAGER (profess. & kin.)

Manages program to ensure that implementation and prescribed activities are carried out in accordance with specified objectives: Plans and develops methods and procedures for implementing program, directs and coordinates program activities, and exercises control over personnel responsible for specific functions or phases of program. Selects personnel according to knowledge and experience in area with which program is concerned, such as social or public welfare, education, economics, or public relations. Confers with staff to explain program and individual responsibilities for functions and phases of program. Directs and coordinates personally, or through subordinate managerial personnel, activities concerned with implementation and carrying out objectives of program. Reviews reports and records of activities to ensure progress is being accomplished toward specified program objective and modifies or changes methodology as required to redirect activities and attain objectives. Prepares program reports for superiors. Controls expenditures in accordance with budget allocations. May specialize in managing governmental programs set up by legislative body or directive and be designated Manager, Governmental Program (government ser.).
GOE: 11.05.02 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

189.167-034 SECURITY OFFICER (any industry)

Plans and establishes security procedures for company engaged in manufacturing products or processing data or material for federal government: Studies federal security regulations and restrictions relative to company operations. Directs activities of personnel in developing company security measures which comply with federal regulations. Consults with local, district, or other federal representatives for interpretation or application of particular regulations applying to company operations. Prepares security manual outlining and establishing measures and procedures for handling, storing, safekeeping, and destroying classified records and documents, and for granting company personnel or visitors access to classified material or entry into restricted areas. Directs and coordinates activities of personnel in revising or updating security measures due to new or revised regulations. May request deviations from restrictive regulations that interfere with normal operations. May interview and hire applicants to fill security guard vacancies.
GOE: 11.05.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 82

189.167-038 SUPERINTENDENT, AMMUNITION STORAGE (ordnance)

Directs and coordinates, through subordinate supervisory personnel, activities concerned with handling and storing ammunition, rockets, mines, and other explosive components at ammunition supply depot or arsenal: Reviews invoices and requisitions to plan work activities. Prepares schedules for storing incoming and issuing ammunition specifying magazine or bunker number for storing each type of ammunition, quantity to store in bunker or magazine, and numerical order of bunkers or magazines from which to issue requisitioned ammunition. Enforces, through subordinate personnel, worker compliance with established safety regulations, and method and procedures for handling and storing each type of ammunition. Inspects bunkers and magazines to ensure that automatic safeguards and control instrumentation are operative and security measures are in force. Prepares reports and correspondence and directs clerical personnel in typing reports and record keeping activities.
GOE: 05.02.07 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

189.167-042 SUPERINTENDENT, LABOR UTILIZATION (any industry)

Directs and coordinates activities concerned with utilization and work of labor pool in industrial establishment: Inspects plant buildings, structures, and grounds and reviews human resource requests from other departments for workers to perform such work as cleaning tanks, digging ditches, or assisting craft workers, in order to plan labor pool utilization and establish priorities, projects, and schedules. Confers with subordinate supervisory personnel on status of ongoing projects and number of workers required in order to determine allocation and assignment of human resources in labor pool. Assigns supervisory personnel and workers to perform work requested, complete on-going projects, or to assist craft workers, considering such factors as priority of project or work, type of work, and available human resources in labor pool. Inspects projects to ensure work performed meets standards and that workers are observing established safety rules and regulations for type of work being performed. Reassigns workers to meet unforeseen emergencies or work requests. Prepares activity reports on utilization of labor pool human resources, status of projects, and workers assigned work with other departments.
GOE: 11.05.02 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

189.167-046 SUPERINTENDENT, MAINTENANCE (any industry)

Directs and coordinates, through subordinate supervisory personnel, activities of workers engaged in repair, maintenance, and installation of machines, tools, and equipment, and in maintenance of buildings, grounds, and utility systems of mill, industrial plant, or other establishment: Reviews job orders to determine work priorities. Schedules repair, maintenance, and installation of machines, tools, and equipment to ensure continuous production operations. Coordinates activities of workers fabricating or modifying machines, tools, or equipment to manufacture new products or improve existing products. Directs maintenance activities on utility systems to provide continuous supply of heat, steam, electric power, gas, or air required for operations. Develops preventive maintenance program in conjunction with engineering and maintenance staff. Reviews production, quality control, and maintenance reports and statistics to plan and modify maintenance activities. Inspects operating machines and equipment for conformance with operational standards. Plans, develops, and implements new methods and procedures designed to improve operations, minimize operating costs, and effect greater utilization of labor and materials. Reviews new product plans and discusses equipment needs and modifications with design engineers. Requisitions tools, equipment, and supplies required for operations. Directs training and indoctrination of workers to improve work performance and acquaint workers with company policies and procedures. Confers with management, engineering, and quality control personnel to resolve maintenance problems and recommend measures to improve operations and conditions of machines and equipment. May confer with workers' representatives to resolve grievances. May perform supervisory functions in establishments where subordinate supervisory personnel are not utilized. May prepare department budget and monitor expenditure of funds in budget.
GOE: 05.05.02 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 86

189.167-050 SUPERINTENDENT, PLANT PROTECTION (any industry) alternate titles: protection chief, industrial plant; security manager

Directs personnel involved in establishing, promoting, and maintaining firm's security and property-protection programs: Establishes and supervises through subordinates, operational procedures for activities, such as fire prevention and firefighting, traffic control, guarding and patrolling physical property, orienting and monitoring of personnel involved with classified information, and investigation of accidents and criminal acts. Confers with representatives of management to formulate policies, determine need for programs, and coordinate programs with plant activities. Confers with representatives of local government to ensure cooperation and coordination of plant activities with law enforcement and firefighting agencies. May direct activities of workers involved in industrial safety programs. May direct activities of workers engaged in performing building maintenance and janitorial services.
GOE: 11.05.02 STRENGTH: S GED: R5 M4 L4 SVP: 8 DLU: 77

189.167-054 SECURITY CONSULTANT (business ser.; personal ser.)

Plans, directs, and oversees implementation of comprehensive security systems for protection of individuals and homes, and business, commercial, and

industrial organizations, and investigates various crimes against client: Inspects premises to determine security needs. Studies physical conditions, observes activities, and confers with client's staff to obtain data regarding internal operations. Analyzes compiled data and plans and directs installation of electronic security systems, such as closed circuit surveillance, entry controls, burglar alarms, ultrasonic motion detectors, electric eyes, and outdoor perimeter and microwave alarms. Directs installation and checks operation of electronic security equipment. Plans and directs personal security and safety of individual, family, or group for contracted period. Provides bulletproof limousine and bodyguards to ensure client protection during trips and outings. Suggests wearing bulletproof vest when appropriate. Plans and reviews client travel itinerary, mode of transportation, and accommodations. Travels with client and directs security operations. Investigates crimes committed against client, such as fraud, robbery, arson, and patent infringement. Reviews personnel records of client staff and conducts background investigation of selected members to obtain personal histories, character references, and financial status. Conducts or directs surveillance of suspects and premises to apprehend culprits. Notifies client of security weaknesses and implements procedures for handling, storing, safekeeping, and destroying classified materials. Reports criminal information to authorities and testifies in court.
GOE: 04.02.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 86

189.267-010 FIELD REPRESENTATIVE (profess. & kin.)
Reviews and evaluates program operations of national or state affiliated or nonaffiliated social service agency or organization, or community group to provide assistance and services in achieving goals: Interprets standards and program goals of national or state agency to assist local boards, committees, groups, or agencies in establishing program goals and standards. Confers with community councils to advise members on matters relating to program. Evaluates capabilities of local or community agencies or groups to achieve goals, considering such factors as administration and program finances, facilities and personnel staffing, and changing community needs. Prepares reports to inform national or state agency on conditions in local agencies or organizations and developing trends in local communities. May organize or conduct training or staff development programs. May organize regional meetings. May plan or conduct studies or surveys of local agency operation. May assist communities in establishing new local affiliates or programs. May confer with field representatives of other national agencies.
GOE: 11.07.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

19 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS

This division includes miscellaneous occupations concerned with professional, technical, and managerial work.

191 AGENTS AND APPRAISERS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with representing clients in business operations; and determining value, quantity, or quality of a product, property, or object. Included are those classified in one group as both agents and appraisers.

191.117-010 ARTIST'S MANAGER (amuse. & rec.) alternate titles: artist's representative; artist consultant; personal agent; personal manager; talent agent
Manages affairs of entertainers by participating in negotiations with agents and others concerning contracts and business matters affecting clients' interests, and advises clients on career development and advancement: Represents client in negotiations with officials of unions, motion picture or television studios, theatrical productions, or entertainment house, for favorable contracts and financial fees to be received for engagements. Advises client concerning contracts, wardrobe, and effective presentation of act, according to knowledge of show business. Procures services of professional personnel in particular phase of show business to create or design format of original act, or prepare special material for new act to advance client's career. Manages business details of tours and engagements, such as obtaining reservations for transportation and hotel accommodations, and making disbursements for road expenses. Represents client in public contacts, such as handling fan mail, telephone inquiries, and requests for personal appearances. May audition new talent for representation purposes. May procure bookings for clients.
GOE: 11.12.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

191.117-014 BOOKING MANAGER (amuse. & rec.) alternate titles: booker; booking agent
Books performers, theatrical or ballet productions, variety or nightclub acts, concert or lecture series, trade shows, or other popular or classical attractions for entertainment in various establishments, such as theaters, showplaces, clubs, or halls: Schedules attractions for season, considering such factors as entertainment policy, budget, and tastes of patrons of particular establishment represented. Negotiates with booking representatives or producers of attractions to arrange terms of contract, play dates, and fees to be paid for engagements. Auditions new talent. Arranges for billing in accordance with contract agreement. Books motion pictures for exhibit into theater chains or independent houses. Selects and rents pictures to be exhibited on basis of potential box-office sales, cast of players, advertising allotment allowed by distributor, and similar factors. May specialize in in-house bookings and be designated according to establishment as Concert Or Lecture Hall Manager (amuse. & rec.); Showplace Manager (amuse. & rec.). May specialize in independent bookings and be designated according to type of talent or of entertainment package represented and placed as Artists' Booking Representative (amuse. & rec.); Theatrical Variety Agent (amuse. & rec.). May specialize in rental and distribution of motion pictures and be designated Film Booker (amuse. & rec.). May represent popular or rock musical groups only and be designated Band Booker (amuse. & rec.). When sponsoring, managing, and producing an entertainment, may be designated Impresario (amuse. & rec.).
GOE: 11.12.03 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

191.117-018 BUSINESS MANAGER (amuse. & rec.) alternate titles: business agent
Manages financial affairs of entertainers and negotiates with agents and representatives for contracts and appearances: Negotiates with officials of unions, motion picture or television studios, stage productions, or entertainment houses for contracts and financial return to be received for engagements. Promotes client's interests by advising on income, investments, taxes, legal, and other financial matters. Provides liaison between client and representatives concerning contractual rights and obligations to settle contracts. Summarizes statements on periodic basis concerning client's investments, property, and financial status.
GOE: 11.12.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

191.117-022 CIRCUS AGENT (amuse. & rec.)
Plans and arranges route of circus for following season, coordinating date and location schedules: Obtains information about facilities of new locations to determine feasibility of presenting show. Consults with circus officials to arrange route and obtain approval of tour. Schedules dates of performance for each location, taking into consideration length of travel time to transport circus from one location to another, climatic conditions, budget, and previous year's attendance records. Rearranges tour in event of unexpected occurrences.
GOE: 11.12.03 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

191.117-026 JOCKEY AGENT (amuse. & rec.)
Represents riders of race horses in negotiations with owners to arrange for riding engagements at racetrack: Contacts riders to ascertain races and dates they are available for hire. Confers with owners of horses scheduled to race to inform them of riders available. Negotiates with owners for riding fees. Records name of owner, horse, date, and number of race in engagement book. Notifies riders of contracted engagements, and terms agreed on. Notifies riders to report to owner for briefing on horse's temperament and behavior, and other riding instructions. Collects hiring fees from riders.
GOE: 11.12.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

191.117-030 LEASE BUYER (mine & quarry; petrol. & gas) alternate titles: leaser
Contacts landowners and representatives of other oil or coal producing firms to negotiate agreements, such as leases, options, and royalty contracts covering oil or coal exploration, drilling, and producing activities in specified oil or coal fields: Discusses and draws up unitization agreements (pooling oil and gas production from wells located in same field with other oil producers). Discusses land leases and options and royalty payments with landowners and obtains signatures to documents. Applies knowledge of company policies and local, state, and federal laws relating to petroleum or coal leases to prepare agreements. May examine abstracts to verify clearance of title to oil or coal properties and write purchase orders and bank checks to satisfy requirements of leases, agreements, and contracts [TITLE CLERK (petrol. & gas; petrol. refin.; pipe lines)].
GOE: 11.12.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

191.117-034 LITERARY AGENT (business ser.) alternate titles: author's agent; writer's representative
Markets clients' manuscripts to editors, publishers, and other buyers: Reads and appraises manuscripts and suggests revisions. Contacts prospective purchaser of material, basing selection upon knowledge of market and specific content of manuscript. Negotiates contract between publisher and client. Usually works on commission basis.
GOE: 11.12.03 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

191.117-038 MANAGER, TOURING PRODUCTION (amuse. & rec.) alternate titles: manager, theatrical production; manager, touring
Travels with and manages business affairs of theatrical company on tour: Completes various arrangements, such as contracting union agreements, hiring stage hands, and procuring legal permits for performance. Approves budgetary items for advertising and promotional purposes. Audits box-office receipts and files accounting statements according to legal requirements. May compile payroll records and distribute paychecks. When coordinating business affairs of first touring company on road, may be designated Company Manager (amuse. & rec.). When managing second and third road show companies, may be designated Road Manager (amuse. & rec.).
GOE: 11.11.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

191.117-042 PERMIT AGENT, GEOPHYSICAL PROSPECTING (petrol. & gas)
Negotiates permits with property owners to allow prospecting, surveying, and testing for petroleum and gas deposits: Searches public records to determine

legal ownerships of proposed exploration sites. Precedes prospecting party to area and interviews local authorities and landowners to determine legal and highway regulations and to draw up trespass agreements. Draws sketches of prospecting locations and terrain to be traversed. Drives stakes in ground to indicate locations of shot holes and recording instruments for use in surveying land and conducting seismic, magnetic, and gravity tests.
GOE: 11.12.02 STRENGTH: L GED: R5 M4 L5 SVP: 6 DLU: 77

191.117-046 RIGHT-OF-WAY AGENT (any industry) alternate titles: claims agent, right-of-way; permit agent

Negotiates with property owners and public officials to secure purchase or lease of land and right-of-way for utility lines, pipelines, and other construction projects: Determines roads, bridges, and utility systems that must be maintained during construction. Negotiates with landholders for access routes and restoration of roads and surfaces. May examine public records to determine ownership and property rights. May be required to know property law.
GOE: 11.12.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

191.117-050 RIGHT-OF-WAY SUPERVISOR (any industry) alternate titles: supervisor, permits, easements, and right-of-way

Coordinates activities of field agents and contacts property owners and public officials to obtain permits and easements or to purchase right-of-way for utility lines, pipelines, and other construction projects: Directs activities involved in search of city and county records to ascertain ownership of properties, and disposition of rights along streets, alleys, and highways. Interprets company policy for RIGHT-OF-WAY AGENTS (any industry) regarding purchase of property, or payments and terms of agreements for permits and easements to install facilities on property belonging to other parties. Purchases or directs acquisition of right-of-way or obtaining permits, licenses, and agreements. Settles claims for property or crop damage resulting from construction activities. Releases information to public regarding right-of-way agreements and arranges for modification or release of existing agreements. May direct activities of surveying crews in surveying right-of-way and lines for new construction.
GOE: 11.12.02 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

191.157-010 PAWNBROKER (retail trade)

Estimates pawn or pledge value of articles, such as jewelry, cameras, and musical instruments, and lends money to customer: Examines article to determine condition and worth. Weighs gold or silver articles on coin scales or employs acid tests to determine carat content and purity to verify value of articles. Inspects diamonds and other gems for flaws and color, using loupe (magnifying glass). Assigns pledge value to article based on knowledge of values or listing of wholesale prices. Rejects articles in unsatisfactory condition or having no pledge value. Issues pledge tickets and keeps record of loans. Computes interest when pledges are redeemed or extended. Sells unredeemed pledged items. May examine customer's identification and record thumbprints for police reports. May testify in court proceedings involving stolen merchandise.
GOE: 08.01.03 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

191.167-010 ADVANCE AGENT (amuse. & rec.)

Coordinates business and promotional activities concerned with production of entertainment in advance of touring theatrical company, circus, road show, motion picture, or other attraction: Inspects performance location and reports condition, and if stage presentation, inspects equipment and accommodations of theatre, such as size of stage, seating capacity, and number of dressing rooms. Completes business details, such as advance sale of tickets and lodging for members of touring group. Purchases advertising space or spot announcements in newspapers, radio and television, and other media. Distributes posters, signs, and other displays to stimulate interest in coming attraction and promote box-office sales [PUBLIC-RELATIONS REPRESENTATIVE (profess. & kin.)].
GOE: 11.12.03 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

191.167-014 CLAIM AGENT (petrol. & gas; pipe lines)

Interviews property holders and adjusts damage claims resulting from activities connected with prospecting, drilling, and production of oil and gas, and laying of pipelines on private property: Examines titles to property to determine their validity and acts as company agent in transactions with property owners. Investigates and assesses damage to crops, fences, and other properties, and negotiates claim settlements with property owners. Collects and prepares evidence to support contested damage claims in courts.
GOE: 11.12.01 STRENGTH: S GED: R6 M3 L6 SVP: 7 DLU: 77

191.167-018 LOCATION MANAGER (motion picture; radio-tv broad.)

Arranges for leasing of suitable property for use as location for television or motion picture production: Confers with production or unit manager and DIRECTOR, TELEVISION (radio-tv broad.) or DIRECTOR, MOTION PICTURE (motion picture) regarding scenic backgrounds, terrain, and other topographical details of locations required for photographing exterior scenes. Searches files for pictures or descriptions of suitable locations or seeks new locations. Contacts property owners and local officials to arrange leasing and use of public and private property, rental of housing facilities, hiring of extras, and to obtain sanction for production activities. Arranges for transportation of troupe to location.
GOE: 11.12.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

191.167-022 SERVICE REPRESENTATIVE (auto. mfg.)

Investigates dealer's claims for reimbursement of defective automotive parts: Reviews claims for labor or material adjustments with automobile dealer, examines parts claimed to be defective, and approves or disapproves dealer's claim. Assists dealers in handling unsettled claims by consulting with service personnel or customers. Prepares reports showing volume, types, and disposition of claims handled, or settlement allowed. May train dealers or service personnel in service operations or construction of products. May study dealers' organizational needs and advise them on matters, such as parts, tools, equipment, and personnel needed to handle service volume. May contact customers to survey customer satisfaction with purchase of new motor vehicle.
GOE: 11.12.01 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 90

191.267-010 APPRAISER, REAL ESTATE (real estate)

Appraises improved or unimproved real property to determine value for purchase, sale, investment, mortgage, or loan purposes: Interviews persons familiar with property and immediate surroundings, such as contractors, home owners, and other realtors to obtain pertinent information. Inspects property for construction, condition, and functional design and takes property measurements. Considers factors, such as depreciation, reproduction costs, value comparison of similar property, and income potential, when computing final estimation of property value. Considers location and trends or impending changes that could influence future value of property. Searches public records for transactions, such as sales, leases, and assessments. Photographs interiors and exteriors of property, to assist in estimating property value, to substantiate findings, and to complete appraisal report. Prepares written report, utilizing data collected and submits report to corroborate value established. May direct activities of appraisers. May evaluate staff job performance and recommend measures to improve performance according to establishment policies and procedures.
GOE: 11.06.03 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 89

191.287-010 APPRAISER (any industry)

Appraises merchandise, fixtures, machinery, and equipment of business firms to ascertain values for such purposes as approval of loans, issuance of insurance policies, disposition of estates, and liquidation of assets of bankrupt firms: Examines items and estimates their wholesale or auction-sale values, basing estimate on knowledge of equipment or goods, current market values, and industrial and economic trends. Prepares and submits reports of estimates to clients, such as insurance firms, lending agencies, government offices, creditors, courts, or attorneys.
GOE: 11.06.03 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

191.287-014 APPRAISER, ART (profess. & kin.)

Examines works of art, such as paintings, sculpture, and antiques, to determine their authenticity and value: Examines work for color values, style of brushstroke, esthetic correctness, and other characteristics, to establish art period or identify artist. Judges authenticity and value, based on knowledge of art history, materials employed, techniques of individual artists, and current market. May illuminate work with quartz light to determine whether discoloration is present. May x ray painting and perform chemical tests on paint sample to detect forgery or to authenticate work. May specialize in particular categories of art or in specific types of artistic articles appraised.
GOE: 01.02.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

191.367-010 PERSONAL PROPERTY ASSESSOR (government ser.) alternate titles: deputy assessor

Prepares lists of personal property owned by householders and merchants in assigned area to facilitate tax assessment, showing number and estimated value of taxable items designated in regulations.
GOE: 11.06.03 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

193 RADIO OPERATORS

This group includes occupations concerned with receiving and transmitting communications, using radiotelegraph or radiotelephone equipment, in accordance with government regulations. Must be federally licensed.

193.162-010 AIR-TRAFFIC COORDINATOR (government ser.)

Coordinates movement of air traffic between altitude sectors and control centers to provide maximum separation and safety for aircraft: Maintains radio and telephone contact with AIR-TRAFFIC COORDINATORS (government ser.) in adjoining control centers. Relays information regarding air traffic by radio to AIR-TRAFFIC-CONTROL SPECIALIST, TOWER (government ser.) and AIR-TRAFFIC-CONTROL SPECIALIST, STATION (government ser.), monitoring each sector, for transmittal to AIRPLANE PILOT, COMMERCIAL (air trans.). Relays information, such as altitude, expected time of arrival, and course. Determines procedure and time for altitude changes to prevent collisions and excessive traffic buildup in flight sector. Completes daily activity report.
GOE: 05.03.03 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

193.162-014 AIR-TRAFFIC-CONTROL SPECIALIST, STATION (government ser.)

Receives and transmits flight plans, meteorological, navigational, and other information in air traffic control station to perform preflight and emergency service for airplane pilots: Accepts flight plans from pilots in person or by telephone and reviews them for completeness. Routes plans for operating under instrument flight rules to control center and for operating under visual flight rules to station in vicinity of destination airport, using radio, teletype, radiotelephone, radiotelegraph, telephone, or interphone. Provides meteorological, navigational, and other information to pilots during flight, using radio. Relays traffic control

and other instructions concerned with aircraft safety to pilots. Radios such information as identifying landmarks, beacons, and available landing fields to pilots in flight. Maintains file of plans for operating under visual flight rules until completion of flight, and contacts facilities along route of flight to secure information on overdue aircraft. Reports lost aircraft to control center for rescue or local emergency services. Monitors such radio aids to navigation as range stations, fan markers, and voice communication facilities, and notifies air personnel of availability of these facilities. Maintains written records of messages transmitted and received.
GOE: 05.03.03 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 81

193.162-018 AIR-TRAFFIC-CONTROL SPECIALIST, TOWER (government ser.) alternate titles: airport-control operator; control-tower-radio operator; flight-control-tower operator

Controls air traffic on and within vicinity of airport according to established procedures and policies to prevent collisions and to minimize delays arising from traffic congestion: Answers radio calls from arriving and departing aircraft and issues landing and take-off instructions and information, such as runway to use, wind velocity and direction, visibility, taxiing instructions, and pertinent data on other aircraft operating in vicinity. Transfers control of departing flights to and accepts control of arriving flights from air traffic control center, using telephone or interphone. Alerts airport emergency crew and other designated personnel by radio or telephone when airplanes are having flight difficulties. Pushes buttons or pulls switches to control airport floodlights and boundary, runway, and hazard lights. Scans control panel to ascertain that lights are functioning. Operates radio and monitors radarscope to control aircraft operating in vicinity of airport. Receives cross-country flight plans and transmits them to air traffic control center. Signals aircraft flying under visual flight rules, using electric signal light or flags. May control cross-runway traffic by radio directions to guards or maintenance vehicles. May keep written record of messages received from aircraft. May control traffic within designated sector of airspace between centers and beyond airport control tower area and be designated Air-Traffic-Control Specialist, Center (government ser.).
GOE: 05.03.03 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 81

193.162-022 AIRLINE-RADIO OPERATOR, CHIEF (air trans.; business ser.) alternate titles: senior radio operator; watch supervisor

Coordinates activities of AIRLINE-RADIO OPERATORS (air trans.; business ser.) in maintaining radio communications with aircraft and other ground stations: Establishes and maintains standards of operation by periodic inspections of equipment and tests of AIRLINE-RADIO OPERATORS (air trans.; business ser.) Periodically reviews company and Federal Aviation Authority regulations regarding radio communications. Assigns personnel to individual jobs. Coordinates radio searches for overdue or lost airplanes. Inspects radio reports. Makes emergency repairs to equipment or gives instructions for such repairs. Examines and operates new equipment prior to installation in airport radio stations.
GOE: 07.04.05 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

193.167-010 CHIEF CONTROLLER (government ser.) alternate titles: air-traffic-control supervisor

Coordinates activities of and supervises personnel engaged in operation of air traffic control tower, station, or center: Interprets Federal Aviation Agency directives and places them into effect. Adapts procedures to deal with problems or situations not covered by established procedures or policies. Organizes and conducts on-the-job training of AIR-TRAFFIC-CONTROL SPECIALIST, STATION (government ser.); AIR-TRAFFIC-CONTROL SPECIALIST, TOWER (government ser.). Directs radio searches for overdue or lost aircraft. Inspects radio equipment for frequency adjustments and reviews records and reports for clarity and completeness. May be designated according to control activity supervised as Chief Controller, Center (government ser.); Chief Controller, Station (government ser.); Chief Controller, Tower (government ser.).
GOE: 05.03.03 STRENGTH: S GED: R5 M4 L4 SVP: 7 DLU: 77

193.167-014 FIELD SUPERVISOR, BROADCAST (radio-tv broad.)

Coordinates activities of FIELD ENGINEERS (radio-tv broad.) in installing, testing, and operating portable field equipment used to broadcast programs or events from points distant from studio: Assigns FIELD ENGINEERS (radio-tv broad.) with audio and relay equipment to various field pick-up points, to test equipment prior to broadcast. Directs workers in maintaining field transmission equipment in operating order.
GOE: 05.03.05 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

193.167-018 SUPERINTENDENT, RADIO COMMUNICATIONS (government ser.) alternate titles: commanding officer, radio division communications officer

Directs and coordinates various activities of personnel engaged in installing and maintaining municipal emergency and business radio communications equipment, and in operating police, fire, or other municipal radio transmitters: Ensures that government regulations concerning installation and operation of municipal radio stations are complied with. Participates in operation, testing, and development of all types of police, fire, or other municipal communication systems. Submits required reports to designated authorities concerning communications equipment status, such as nature of business transacted over radio station, character of radio repairs made or needed, and general condition of municipal communications system. Confers with municipal authorities for approval of major capital investments needed in establishing and maintaining system. Cooperates with fire, weather station, and civil defense authorities to originate or relay emergency messages. In communities where equipment is used primarily for police broadcasts, may be a police officer and be designated according to rank as Radio-Division Captain (government ser.); Radio-Division Lieutenant (government ser.).
GOE: 05.02.04 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

193.262-010 AIRLINE-RADIO OPERATOR (air trans.; business ser.)

Transmits and receives messages between station and aircraft or other ground stations by radiotelephone: Sends meteorological data to aircraft by radiotelephone. Relays by telegraphic typewriter to DISPATCHER (air trans.) transmissions from aircraft, such as number of passengers aboard, estimated time of arrival, mechanical condition of plane, and requests for repairs. Relays instructions of air traffic control centers to airplane when communication fails. Makes connections between telephone and radio equipment to permit direct communication between DISPATCHER (air trans.) and airplane. Must be licensed by Federal Communications Commission.
GOE: 07.04.05 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

193.262-014 DISPATCHER (government ser.)

Operates radio and telephone equipment to receive reports and requests from firefighting crews, fire-lookout stations, and mobile units, and relays information or orders to officials concerned. Maintains communications log and maps location of fires, men, and equipment from field reports. May organize and direct activities of firefighting crew.
GOE: 07.04.05 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

193.262-018 FIELD ENGINEER (radio-tv broad.) alternate titles: field technician

Installs and operates portable field transmission equipment to broadcast programs or events originating at points distant from studio: Determines availability of telephone wire facilities for use in making connections between microphones, amplifier, telephone line, and auxiliary power supply to relay broadcast to master control. Sets up, tests, and operates microwave transmitter to broadcast program in absence of telephone wire system. Conducts broadcast from field. Must be licensed by Federal Communications Commission. May perform duties of RECORDING ENGINEER (recording; radio-tv broad.) 194.362-010; ANNOUNCER (radio-tv broad.) 159.147-010. May be designated Microwave Engineer (radio-tv broad.) when restricted to operating microwave transmitter.
GOE: 05.03.05 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 88

193.262-022 RADIO OFFICER (water trans.) alternate titles: radio operator

Operates and maintains radiotelegraph and radiotelephone equipment and accessories aboard ship: Turns on power to activate generator, and throws switches to cut in transmitters and antennas. Turns dials to obtain sending frequency and volume. Receives and transmits messages following procedure prescribed by federal regulations. Maintains log of messages transmitted and received. Monitors emergency frequency for ship and distress calls. Performs minor repairs and adjustments on ships' radio equipment and lifeboat radios. Charges batteries. May perform minor repairs to radar, loran, auto-alarm, and gyrocompass systems. May copy broadcast schedules, such as Merfox (U.S. Navy broadcast), Mercast (weather information and navigational hazards), and news (wire-press). Must be licensed by Federal Communications Commission as Radiotelegraph Operator and Radiotelephone Operator, and by U.S. Coast Guard as Radio Officer.
GOE: 07.04.05 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

193.262-026 RADIO STATION OPERATOR (aircraft mfg.) alternate titles: radio operator, ground

Operates radio and associated test equipment at aircraft factory radio station to transmit and receive information during flight testing and delivery of aircraft: Communicates with TEST PILOT (aircraft mfg.) 196.263-042, engineering personnel, and others during flight testing to relay information. Observes aircraft prior to landing or takeoff and advises plane crew of observations. Maintains station log and other flight test records. May dispatch firetrucks, emergency equipment, and personnel during test flights. May operate radar and specialized test equipment during flight testing or preflight checkout to assist engineers in evaluating aircraft or equipment.
GOE: 07.04.05 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 87

193.262-030 RADIOTELEGRAPH OPERATOR (tel. & tel.) alternate titles: cw operator; radiotelegraphist

Operates and keeps in repair equipment used in radiotelegraph communications: Watches frequency lights on receiver to ascertain if station is being called. Snaps toggle switch that sets receiver to frequency when call is indicated. Opens circuit and manipulates key to acknowledge call. Listens to telegraph signal, types message on form, and relays it to addressee by telephone or teletype. Manipulates key to call ships or stations by code, and to send messages after acknowledgement. Monitors emergency frequency for distress calls, and Conelrad (civil defense circuit) as required by regulations. Performs routine repairs and maintenance, such as changing tubes, resistors, and transmitters. Is required to have Radiotelegraph License issued by Federal Communications Commission.
GOE: 07.04.05 STRENGTH: S GED: R4 M2 L3 SVP: 7 DLU: 77

193.262-034 RADIOTELEPHONE OPERATOR (any industry) alternate titles: phone-circuit operator; radiophone operator; radiotelephone-technical operator

Operates and keeps in repair radiotelephone transmitter and receiving equipment for commercial communication: Throws switches to cut in power to

stages of transmitter. Cuts in antennas and connects transmitting and receiving equipment into telephone system. Turns controls to adjust voice volume and modulation, and to set transmitter on specified frequency. Conducts routine tests and repairs transmitting equipment, using electronic testing equipment, handtools, and power tools, to maintain communication system in operative condition. Must hold Radiotelephone Operator's License issued by Federal Communications Commission.
GOE: 05.03.05 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

193.262-038 TRANSMITTER OPERATOR (radio-tv broad.) alternate titles: transmitter engineer

Operates and maintains radio transmitter to broadcast radio and television programs: Moves switches to cut in power to units and stages of transmitter. Monitors lights on console panel to ascertain that components are operative and that transmitter is ready to emit signal. Turns controls to set transmitter on FM, AM, or TV frequency assigned by Federal Communications Commission. Monitors signal emission and spurious radiations outside of licensed transmission frequency to ensure signal is not infringing on frequencies assigned other stations. Notifies broadcast studio when ready to transmit. Observes indicators and adjusts controls to maintain constant sound modulation and ensure that transmitted signal is sharp and clear. Maintains log of programs transmitted as required by Federal Communications Commission. Tests components of malfunctioning transmitter to diagnose trouble, using test equipment, such as oscilloscope, voltmeters, and ammeters. Disassembles and repairs equipment, using handtools [RADIO MECHANIC (any industry) 823.261-018]. May converse with studio personnel to determine cause of equipment failure and to solve problem. May operate microwave transmitter and receiver to receive or send programs to or from other broadcast stations. Must possess license issued by Federal Communications Commission.
GOE: 05.03.05 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 89

193.362-010 PHOTORADIO OPERATOR (print. & pub.; tel. & tel.) alternate titles: facsimile operator; radio-photo technician; telephoto engineer

Operates electronic equipment to transmit and receive radio photographs and repairs equipment: Mounts photographs or printed matter on cylinder and secures with gripper bar. Turns dials to set frequency controls. Starts equipment that scans material and converts light and dark areas into electrical impulses for transmission. Communicates with receiving operator to give and receive instructions for transmission. Positions negative on cylinder, sets controls, and listens for signals to receive transmission. Develops negatives, prints photographs, and keeps log of transmissions. Maintains and repairs electronic equipment, such as wire circuits, dials, and gauges, using schematic diagram, handtools, and test instruments. Reruns transmission when photograph is substandard. May send or receive Morse code messages when voice communication is not possible. May transmit and receive news photographs, using automated telephoto equipment. May be required to hold Federal Communications Commission operator's license.
GOE: 07.04.05 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

193.362-014 RADIO-INTELLIGENCE OPERATOR (government ser.)

Controls equipment to intercept, locate, identify, and record radio transmissions of enemy or potential enemy: Tunes receiver over assigned frequency band. Obtains bearings on source of transmission, using electronic direction-finding equipment. Informs location plotters of bearings obtained to locate and identify station. Monitors stations, records intercepted transmissions, and forwards transcripts for decoding. May operate sound-recording equipment to preserve broadcast for analysis by other intelligence personnel.
GOE: 05.03.05 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

193.382-010 ELECTRONIC INTELLIGENCE OPERATIONS SPECIALIST (military ser.)

Operates electronic monitoring and related equipment to detect electronic emissions: Conducts continuous search and monitoring of assigned portions of radio frequency spectrum, using special search or monitoring equipment. Observes video presentations or listens to signal to determine primary characteristics of monitored signals. Operates cameras to photograph signals. Operates recorders to record signals. Determines azimuth from which signal originated, using direction finder procedures. Determines accurately and rapidly parameters, directional bearing, and point of origin of electronic data recorded on photographic film and magnetic tape through operation of technical laboratory analysis equipment, such as electronic parameter display consoles, oscilloscope, electronic counters and sorters, X-Y plotters, sonographs, visographs, brush recorders, video and audio playback units, complex viewers, visual projectors, and associated analog and digital equipment.
GOE: 05.03.05 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

194 SOUND, FILM, AND VIDEOTAPE RECORDING, AND REPRODUCTION OCCUPATIONS

This group includes occupations concerned with recording, transcribing, reproducing and regulating quality of voice, music, and other sounds by use of electronic equipment. Includes occupations concerned with motion picture film, video tape, and phonograph record production. Occupations concerned with radio and television broadcasting must be federally licensed. Occupations concerned with creating and editing sound and visual effects are found in Group 962. Cutting and splicing of film and videotape are included in Group 976.

194.062-010 TELEVISION TECHNICIAN (radio-tv broad.) alternate titles: production assistant; production technician

Performs any combination of following duties to record and transmit broadcasts: Operates studio and mini-television (portable, shoulder-mounted) cameras [CAMERA OPERATOR (motion picture; radio-tv broad.) 143.062-022]. Controls console to regulate transmission of television scenes [VIDEO OPERATOR (radio-tv broad.) 194.282-010]. Produces educational and training films and video tapes [COMMUNICATIONS TECHNICIAN (education) 962.362-010]. Sets up and controls television production equipment, such as cameras [CAMERA OPERATOR (radio-tv broad.)], lights [LIGHT TECHNICIAN (motion picture; radio-tv broad.) 962.362-014], microphones and microphone booms [MICROPHONE-BOOM OPERATOR (motion picture; radio-tv broad.) 962.384-010], and recording equipment [RECORDIST (motion picture) 962.382-010], in studio and at locations outside of studio, to record or transmit broadcasts. Performs preventive and minor equipment maintenance, using work tools. Maintains log to record equipment usage and location of equipment. May perform duties of other related occupations depending upon specific production needs of individual airwave or closed-circuit station where workers must be able to set up and operate equipment.
GOE: 01.02.03 STRENGTH: H GED: R5 M4 L5 SVP: 7 DLU: 89

194.122-010 ACCESS COORDINATOR, CABLE TELEVISION (radio-tv broad.)

Instructs trainees in use of equipment; and operates equipment, such as camera, sound mixer, and videotape deck, to film events, to copy/edit graphics, voice, and music onto videotape, for broadcast on cable television: Determines time and day of class and plans outline of material to be covered. Distributes manuals, and instructs and demonstrates to trainees, care, setup and operation of equipment, such as tripods, microphones and portable camera. Prepares and administers written and practical tests to test trainees' knowledge. Determines equipment required to film event, and sets up and operates equipment, such as lights and portable camera to film event. Prepares script of filmed event. Loads videotape deck with videotape and instructs assistant to read script. Sets recording level, and records verbal description of event onto videotape, using videotaping equipment. Reviews videotape of filmed event, using videotaping equipment, to determine quality of video and color. Observes scales in video and color monitors and operates controls to adjust video and color levels. Enters written information about filmed event into graphic equipment. Plays musical selection, using stereo equipment, and adjusts controls to improve clarity and balance music. Sets *inpoints* and *outpoints* for graphics, voice, and music. Records graphics, voice, and music onto videotape, using audio/video equipment. Observes monitors to verify that video, voice, and music are synchronized during editing/copying process. Reviews assembled videotape, using videotaping equipment, to discern quality of video and audio signals, and operates controls to clarify and adjust video and audio signals. Edits manuals and schedules programs. May prepare report outlining past programs and future programs to be aired, and contents of programs.
GOE: 05.03.05 STRENGTH: H GED: R4 M3 L4 SVP: 7 DLU: 88

194.162-010 PROGRAM DIRECTOR, CABLE TELEVISION (radio-tv broad.) alternate titles: production supervisor

Directs and coordinates activities of workers engaged in selection and production of cable television programs, and operates equipment to film events, and to copy/edit graphics, voice, and music onto videotape: Interviews and hires workers. Instructs workers in operation and maintenance of equipment, such as cameras and microphones, or directs instruction of workers through subordinate personnel. Gives work directives, resolves problems, interprets policies and procedures and prepares work schedules. Initiates disciplinary action for rules infractions and terminates workers. Contacts talent (entertainers) and companies to determine interest in program(s) and interest in supplying prizes to audience participants. Writes script and rehearses script with talent. Coordinates audio work, music, camera work and script to produce show. Operates equipment, such as camera, sound mixer, and videotape deck, to film events, and to edit/copy graphics, voice and music onto videotape. Performs public relations duties, such as contacting school personnel to discuss company's internship program for students, and prepares press releases for newspapers, indicating company trends and direction. Prepares and monitors budget to verify expenditures stay within budgetary restrictions. Prepares forms for government agencies and contract renewal. Prepares invoices and bills customers for services rendered. May operate broadcast equipment to transmit program to viewing audience.
GOE: 05.02.04 STRENGTH: H GED: R5 M3 L5 SVP: 8 DLU: 88

194.262-010 AUDIO OPERATOR (radio-tv broad.) alternate titles: audio engineer; audio technician; sound engineer, audio control

Controls audio equipment to regulate volume level and quality of sound during television broadcasts, according to script and instructions of DIRECTOR, TECHNICAL (radio-tv broad.) 962.162-010: Places microphones or directs worker in placing microphones in locations that ensure quality of sound reproduction. Cuts microphones in, and blends output of individual microphones by adjusting volume, fader, and mixer controls. Monitors audio signals by earphone, loudspeaker, and by observing dials on control panel to verify quality of sound reproduction. Sets keys, switches, and dials to synchronize sound with picture presentation. Obtains tapes, records, and themes from library according to program schedule. Operates turntables and tape recording machines to reproduce music and audio sounds for specific programs. May direct adjustment of acoustical curtains and blinds within studio.

GOE: 05.10.05 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 89

194.262-014 SOUND CONTROLLER (amuse. & rec.)

Operates sound-mixing board to control output of voices, music, and previously taped sound effects during stage performances: Analyzes script of dialog, music, and sound effects as applied to particular scene to determine sound requirements. Confers with producing personnel concerning microphone placement, special sound effects, cues, and acoustical characteristics of theater. Locates sound-mixing board backstage or in theater control room. Arranges microphones in theater to achieve best sound pickup. Moves control to turn microphones on or off and adjusts volume, fader, and mixer controls to blend output of individual microphones. Listens to overall effect on monitor loudspeaker and observes dials on control panel to verify suitability of sounds. May modify design of sound equipment used. May operate record and electrical transcription turntables to supply musical selections and other sound material.

GOE: 05.10.03 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 77

194.262-018 SOUND MIXER (motion picture; radio-tv broad.; recording) alternate titles: board operator; mixer operator; music mixer; studio engineer; studio technician

Operates console to regulate volume level and quality of sound during filming of motion picture, phonograph recording session, or television and radio productions: Determines acoustics of recording studio and adjusts controls to specified levels. Directs installation of microphones and amplifiers for use in sound pickup. Turns knobs and dials on console while recording to cut microphones in and out, and to blend output of individual microphones to obtain balance between music, dialog, and sound effects. Instructs performers to project voices for pickup by microphones. Copies and edits recordings, using recording and editing equipment. May test machines and equipment, using electronic testing equipment, such as ohm and voltage meters, to detect defects. May repair and replace audio amplifier parts.

GOE: 05.10.05 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 89

194.262-022 MASTER CONTROL OPERATOR (radio-tv broad.) alternate titles: master control engineer

Sets up, controls and monitors television broadcasting equipment to transmit television programs and station breaks to viewing audience: Reads television programming log to ascertain name of program or station break, and at what time program or station break is scheduled to air. Verifies voice-over recording, using tape equipment, and informs supervisor of inconsistencies. Loads videotape equipment with videotapes containing program or station break or presses button on switching equipment to access videotape equipment. Subtracts *preroll* time from on-air time to determine at what time to begin preroll. Turns video and color monitors on and presses button to start videotape equipment. Observes scales in video and color monitors and turns knobs to set video and color levels to specifications. Turns knob to set audio level to specification. Observes clock, and presses buttons on switching equipment to begin preroll and to transmit program or station break to viewing audience. Observes on-air monitor to ascertain problems with transmission, such as loss of audio or video signals, and presses buttons to access and transmit technical difficulties sign or station identification to viewing audience. Presses buttons to access voice-over recording indicating nature of problem, name of station or name of next scheduled program. Troubleshoots equipment and observes lights on transmitter control panel to determine cause and area of problem and informs engineering personnel of transmission problems. Records onto television programming log actual time program or station break was aired. Prepares report describing problems encountered during transmission of program or station break and reason for problems. May control transmitting equipment to route television program to affiliated station. May take and record transmitter readings onto transmitter log. May be required to hold license issued by Federal Communications Commission.

GOE: 05.03.05 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 89

194.282-010 VIDEO OPERATOR (radio-tv broad.) alternate titles: camera control operator; color-television console monitor; video engineer

Controls video console to regulate transmission of television scenes, including test patterns and filmed and live black-and-white or color telecast: Views action on television monitor and sets switches and observes dials on console to control framing, contrast, brilliance, color balance, and fidelity of image being transmitted. Monitors on-air programs to ensure technical quality of broadcast. Previews upcoming program to determine that signal is functioning and that program will be ready for transmission at required time. May maintain log on studio-to-transmitter microwave link.

GOE: 05.03.05 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 88

194.362-010 RECORDING ENGINEER (radio-tv broad.; recording) alternate titles: sound recording technician

Operates disk or tape recording machine to record music, dialog, or sound effects of phonograph recording sessions, radio broadcasts, television shows, training courses, or conferences, or to transfer transcribed material to sound-recording medium: Threads tape through recording device or places blank disk on turntable. Moves lever to regulate speed of turntable. Places cutting stylus on record. Examines grooves during cutting by stylus to determine if grooves are level, using microscope. Turns knobs on cutting arm to shift or adjust weight of stylus and cause grooves to be cut evenly. Starts recording machine and moves switches to open microphone and tune in live or recorded programs. Listens through earphone to detect imperfections of recording machines or extraneous noises emanating from recording studio or production stage. Observes dials, mounted on machine, to ensure that volume level and intensity remain within specified limits. Removes filled reel or completed recordings from machine and attaches identifying labels. Keeps record of recordings in logbook. May service and repair recording machines and allied equipment. May be designated according to type of machine used as Disk-Recording-Machine Operator (radio-tv broad.; recording); Tape-Recording-Machine Operator (radio-tv broad.; recording). When transcribing to disk used in production of phonograph records, may be designated Dubbing-Machine Operator (recording). When recording live television programs in monochrome or color on magnetic tape is designated Videotape-Recording Engineer (radio-tv broad.).

GOE: 05.10.05 STRENGTH: L GED: R3 M3 L3 SVP: 7 DLU: 77

194.362-014 RERECORDING MIXER (motion picture; radio-tv broad.)

Operates console to synchronize and equalize prerecorded dialog, music, and sound effects with action of motion picture or television production: Reads script and dupe sheets of film and tape or video tape to learn sequence of speaking parts, music, and sound effects to be synchronized and integrated in film or tape or video tape. Informs DUBBING-MACHINE OPERATOR (motion picture; radio-tv broad.) 962.665-010 to load sound tracks onto dubbing machine and MOTION-PICTURE PROJECTIONIST (amuse. & rec.; motion picture) 960.362-010 to place film in projector. Operates console to control starting and stopping of projector and dubbing machine. Observes film or video tape projected onto screen, listens to sound over loud speakers, and turns knobs on panel of console to balance intensity and volume. Informs MOTION-PICTURE PROJECTIONIST (amuse. & rec.; motion picture) to project film onto screen. Observes projection and listens to determine that sound is synchronized and equalized with action on film.

GOE: 05.10.05 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 87

194.362-018 TELECINE OPERATOR (radio-tv broad.)

Controls equipment, such as tape recording and playback units, film projectors, and slide projectors in television broadcasting studio, synchronizing equipment with program content and activities of other technical personnel to maintain prescribed professional programming standards. Threads film or tape through equipment and inserts slides in slide projector. Installs, adjusts, and repairs equipment to facilitate uninterrupted service during broadcast.

GOE: 05.10.05 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 77

194.362-022 TECHNICIAN, NEWS GATHERING (radio-tv broad.) alternate titles: technician-photographer editor

Locates news events, and sets up and controls field transmission equipment to record or transmit news events to television station: Drives vehicle to locate news events, such as fire or public rally, or receives information over two-way radio and scanner about location of news events. Turns power supply and monitors on, and activates air compressor to raise mast. Selects channel for transmission of audio and video signals. Converses with station operator, using two-way radio, while controlling lever to align antennae with receiving dish to obtain clearest signal for transmission of news event to station. Lays electrical cord and audio and video cables between vehicle, microphone, camera, and REPORTER (print. & pub.; radio-tv broad.) 131.262-018, or person being interviewed, to allow for receiving of off-air signal and transmission of audio and video signals to station. Observes scale in video monitor and sets video level to specifications. Sets audio level to specifications. Observes monitor and transmission light, and converses with station operator, using two-way radio, to verify transmission of news event to station, and makes adjustments to equipment. Records news event onto videotape, using recording equipment, during transmission of news event to studio, or receives videotape from CAMERA OPERATOR (motion picture; radio-tv broad.) 143.062-022 and makes dub, using recording equipment. Records information, such as location and news events recorded or transmitted to station, onto log. Is required to hold license issued by Federal Communications Commission.

GOE: 05.03.05 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 89

194.381-010 TECHNICAL TESTING ENGINEER (motion picture) alternate titles: sound installation worker

Tests and adjusts optical, electrical, and audio-frequency equipment used to transmit, record, and reproduce sounds on motion picture set: Inspects sound circuit patch cords to ensure flow of current from sound stage to recording equipment. Tests sound circuits and equipment, such as light valves, galvanometers, microphones, and magnetic recording heads to verify standard operating condition; using portable testing instruments. Replaces defective components and wiring and adjusts equipment to correct defects, using handtools.

GOE: 05.10.03 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

194.382-010 SECTION-PLOTTER OPERATOR (petrol. & gas) alternate titles: playback operator

Operates electronically controlled sound reproducing and photographic equipment (section plotter) to record seismic waves from magnetic tape recordings of explosions reflected or refracted from subsurface strata: Starts equipment and moves controls to align adjacent recordings uniformly on positive photographic film, following tracings of wave form shown on indicator. Verifies identification data on magnetic tape container to ensure specified order of sound reproduction. Clamps magnetic tape around drum of sound reproducer, starts machine, and observes wave form on oscillograph to detect malfunctions. May develop and print photographic recordings in darkroom. May test circuits, resis-

tors, transistors, and related equipment parts, using schematic drawings, wiring diagrams, and electronic test equipment. May replace defective parts and repair faulty connections, using soldering iron.
GOE: 05.10.05 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

194.382-014 TAPE TRANSFERRER (radio-tv broad.; recording) alternate titles: tape duplicator

Operates machines to reproduce tape recordings from master tapes (original tape recording): Consults charts to determine amount of tape needed, considering running time of master tape. Positions master tape in master-reproducing machine and mounts blank tape on spindle of tape-recording machine. Threads tapes through machines. Interconnects and starts machines to record selection on blank tape. Stops machines and reverses tape in recording machine to record second selection on reverse side of tape. Operates recording machine to play back reproduced recording to test quality of reproduced sound.
GOE: 05.10.05 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

194.382-018 VIDEOTAPE OPERATOR (radio-tv broad.) alternate titles: studio technician-video operator; videotape engineer

Sets up and operates videotaping equipment to record and play back television programs, applying knowledge of videotaping equipment operation: Reads television programming log to ascertain program to be recorded or program to be aired. Selects source, such as satellite or studio, from which program will be recorded, and selects videotaping equipment on which program will be recorded. Observes monitor to verify that station is on-air, and informs supervisor if station not on-air. Cleans videotape path to remove contaminants that would affect quality of recording or playback, and mounts videotape onto videotaping equipment. Sets audio level, and records test pattern and program onto videotape, using videotaping equipment. Verifies quality of recording, using videotape equipment, and informs designated personnel of quality of recording. Inspects tape for defective ends, removes defective end, using cutting tool, and mounts videotape onto videotaping equipment to play back program. Starts videotaping equipment and turns video and color monitors on to verify setting of video and color levels. Observes scales in video and color monitors and operates controls to adjust video and color levels. Cues program, using videotaping equipment, and places videotaping equipment in remote control mode for use by other operator. May operate videotaping equipment to dub and edit tapes. May wire audio and video patch bays (socketed equipment that allows for transfer of audio and video signals between different pieces of equipment, via cables). May set up videotaping equipment to play station breaks. May set up film equipment to play program. May make minor repairs to equipment.
GOE: 05.03.05 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 89

194.387-010 QUALITY-CONTROL INSPECTOR (recording) alternate titles: matrix inspector; mother tester

Inspects metal phonograph record *mothers* for surface defects, using optical and sound-reproducing equipment: Places matrix on turntable and measures grooved surface and width of grooves in matrix, using ruler and calibrated microscope. Places tone arm on matrix and starts sound-reproducing machine. Listens for defects in matrix, such as pops and ticks, and observes meter that indicates surface noise and sound level. Stops machine and locates defects in matrix, using microscope and magnifying glass. Marks location of defects with bar soap and returns matrix for repair. Notes reasons for rejection on worksheet. Listens to repaired matrices to ensure that defects have been eliminated.
GOE: 06.03.01 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

194.387-014 RECORD TESTER (recording)

Inspects and tests sample phonograph records, using optical instruments and audio equipment: Inspects record for defects, such as bumps, stains, or scratches. Compares number imprinted on record with serial number on label to ensure correct labeling. Places record on turntable and guides calibrated microscope over revolving record, observing movement of off-center line of record, to determine if groove centering is within specified tolerances. Plays record on sound-producing equipment, listening for defects, such as pops, ticks, or distortion, and to verify that selections on record conform to printed label. Notes defects and returns record to pressing department.
GOE: 06.03.01 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

195 OCCUPATIONS IN SOCIAL AND WELFARE WORK

This group includes occupations concerned with rendering assistance to individuals and groups with problems, such as poverty, illness, family maladjustment, antisocial behavior, financial mismanagement, limited recreation opportunities, and inadequate housing.

195.107-010 CASEWORKER (social ser.) alternate titles: community placement worker; intake worker; social service worker

Counsels and aids individuals and families requiring assistance of social service agency: Interviews clients with problems, such as personal and family adjustments, finances, employment, food, clothing, housing, and physical and mental impairments to determine nature and degree of problem. Secures information, such as medical, psychological, and social factors contributing to client's situation, and evaluates these and client's capacities. Counsels client individually, in family, or in other small groups regarding plans for meeting needs, and aids client to mobilize inner capacities and environmental resources to improve social functioning. Helps client to modify attitudes and patterns of behavior by increasing understanding of self, personal problems, and client's part in creating them. Refers clients to community resources and other organizations. Compiles records and prepares reports. Reviews service plan and performs follow-up to determine quantity and quality of service provided client and status of client's case. Accesses and records client and community resource information, manually or using computer equipped with keyboard, to input and retrieve information. May secure supplementary information, such as employment, medical records, or school reports. May specialize in providing, monitoring, and evaluating services provided to older adults. May determine client's eligibility for financial assistance. May work in collaboration with other professional disciplines. May be required to visit clients in their homes or in institutions. Usually required to have knowledge and skill in case work method acquired through degree program at school of social work. May be required to possess state license or certificate. When rendering advisory services to agencies, groups, or individuals, may be designated Social-Work Consultant, Casework (social ser.). May aid parents with child rearing problems and children and youth with difficulties in social adjustments [CASEWORKER, CHILD WELFARE (social ser.) 195.107-014].
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 81

195.107-014 CASEWORKER, CHILD WELFARE (social ser.)

Aids parents with child rearing problems and children and youth with difficulties in social adjustments: Investigates home conditions to protect children from harmful environment. Evaluates children's physical and psychological makeup to determine needs. Refers child and parent or guardian to community resources according to needs of child. Evaluates foster home environmental factors and personal characteristics of adoption applicants to determine suitability of foster home and adoption applicants. Places and is responsible for children and their well-being in foster or adoptive homes, institutions, and medical treatment centers. Counsels children and parents, guardians, foster parents, or institution staff, concerning adjustment to foster home situation, plans for child's care, interactional behavior modifications needed, or rehabilitation. Places children in adoptive homes and counsels adoptive parents pending legal adoption. Provides service to unmarried parents, including care during pregnancy and planning for child. Arranges for day care or homemaker service. Employed in establishments such as child placement (foster care or adoption), protective service, or institution. Maintains case history records and reports. Usually required to have knowledge and skill in casework methods acquired through degree program at school of social work. May specialize in specific area of child-directed casework and be designated according to work performed as Caseworker, Child Placement (social ser.); Caseworker, Protective Services (social ser.). May interview clients for purpose of screening to determine eligibility for agency services and be designated Caseworker, Intake (social ser.).
GOE: 10.01.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 81

195.107-018 CASEWORKER, FAMILY (social ser.) alternate titles: family counselor

Aids individuals and families having problems concerning family relationships or other aspects of their social functioning affecting unity of family and welfare of community: Counsels clients on problems, such as unsatisfactory relationships between marriage partners or between parents and children; unwed parenthood; home management; work adjustment; vocational training; need for financial assistance; care of the ill, handicapped, or aged; care of other family members at time of physical or mental illness; desertion of parent; or difficulties encountered in travel or stabilization in new community. Helps clients to use agency's services, such as homemaker, or day care, and other community resources. In a public assistance or voluntary agency ascertains client's eligibility for financial assistance and determines amount of grant and assumes responsibility for services rendered. May assist travelers, runaways of any age, migrants, transients, refugees, repatriated Americans, and problem families drifting from community to community, encountering difficulty in traveling or needing help toward stabilization. Employed in organizations, such as public assistance, family service, Travelers Aid, and American Red Cross Home Service. Usually required to have knowledge and skill in casework methods acquired through degree program at school of social work.
GOE: 10.01.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

195.107-022 SOCIAL GROUP WORKER (social ser.)

Develops program content, organizes, and leads activities planned to enhance social development of individual members and accomplishment of group goals: Interviews individual members to assess social and emotional capabilities and plans group composition in relation to personal and social compatibility of members. Selects program appropriate to particular group goals, level of development, needs, capacities, and interests of group members. Involves members in planning and assuming responsibility for activities. Helps members through group experience to develop attitudes and social skills for improved family relations and community responsibility. May secure supplementary information, such as medical records and school reports. May work in collaboration with other professional disciplines. Refers members, when indicated, to community resources and other organizations. Employed in agencies, such as community center, settlement house, youth serving organization, institution for children or aged, hospital, or penal institution. Usually required to have skills acquired through degree program at school of social work.
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 77

195.107-026 SOCIAL WORKER, DELINQUENCY PREVENTION (social ser.)

Works through community action programs to ameliorate social conditions tending to cause juvenile delinquency and provides counseling and guidance to juveniles: Aids civil authorities to plan urban, suburban, and rural development to ensure provisions for meeting social needs of youth. Works with individuals and groups in danger of becoming delinquent, through individual and group guidance and through use of community resources. Refers juveniles to community agencies, such as settlement houses, child guidance clinics, and health clinics, for mental, physical, and social rehabilitation. Works closely with law enforcement agencies, schools, employers, health, welfare, and recreation agencies. Usually attached to public agency.

GOE: 10.01.02 STRENGTH: L GED: R5 M3 L5 SVP: 8 DLU: 80

195.107-030 SOCIAL WORKER, MEDICAL (profess. & kin.) alternate titles: social worker, clinical; social worker, health services

Assists patients and their families with personal and environmental difficulties which predispose illness or interfere with obtaining maximum benefits from medical care: Works in close collaboration with physicians and other health care personnel in patient evaluation and treatment to further their understanding of significant social and emotional factors underlying patient's health problem. Helps patient and family through individual or group conferences to understand, accept, and follow medical recommendations. Provides service planned to restore patient to optimum social and health adjustment within patient's capacity. Utilizes community resources to assist patient to resume life in community or to learn to live within limits of disability. Prepares patient histories, service plans, and reports. Participates in planning for improving health services by interpreting social factors pertinent to development of program. Provides general direction and supervision to workers engaged in clinic home service program activities. Works in general hospitals, clinics, rehabilitation centers, drug and alcohol abuse centers, or related health programs. May be employed as consultant in other agencies. Usually required to have knowledge and skill in casework methods acquired through degree program at school of social work.

GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 89

195.107-034 SOCIAL WORKER, PSYCHIATRIC (profess. & kin.) alternate titles: social worker, clinical; social worker, mental

Provides psychiatric social work assistance to mentally or emotionally disturbed patients of hospitals, clinics, and other medical centers, and to their families, collaborating with psychiatric and allied team in diagnosis and treatment plan: Investigates case situations and presents information to PSYCHIATRIST (medical ser.) 070.107-014 and PSYCHOLOGIST, CLINICAL (profess. & kin.) 045.107-022 and other members of health team, on patient's family and social background pertinent to diagnosis and treatment. Helps patients to respond constructively to treatment and assist in adjustment leading to and following discharge. Interprets psychiatric treatment to patient's family and helps to reduce fear and other attitudes obstructing acceptance of psychiatric care and continuation of treatment. Serves as link between patient, psychiatric agency, and community. May work directly in treatment relationship with patients, individually or in groups, in consultation with PSYCHIATRIST (medical ser.). May refer patient or patient's family to other community resources. Usually required to have knowledge and skill in casework methods acquired through degree program at school of social work.

GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 78

195.107-038 SOCIAL WORKER, SCHOOL (profess. & kin.) alternate titles: home and school visitor; school adjustment counselor; visiting teacher

Aids students with behavioral, mental, emotional or physical problems: Counsels students whose behavior, school progress, or mental or physical hand-cap or condition indicates need for assistance. Consults with parents, teachers, nd other school personnel to determine causes of problems and effect solu-ions. Arranges for medical, psychiatric, and other tests and examinations that nay disclose causes of difficulties and indicate remedial measures. Attempts to lter attitudes and behavior of parents and teachers that cause or aggravate roblems. Recommends change of class or school, special tutoring, or other reatment to effect remedy. Serves as liaison between student, home, school, nd community resources, such as family service agencies, child guidance clin-cs, courts, protective services, doctors, and clergy members. Serves as consult-nt to school personnel regarding students or situations which are not referred or direct service. May lead group counseling sessions to enhance social devel-pment of individual members and provide peer support in areas such as grief, tress, or chemical dependency. Usually required to have knowledge and skill n casework methods acquired through degree program at school of social work nd certification by state department of education.

OE: 10.01.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 81

95.107-042 CORRECTIONAL-TREATMENT SPECIALIST (social ser.)

Provides casework services for inmates of penal or correctional institution: nterviews inmate and confers with attorneys, judges, and probation officers to ompile social history reflecting such factors as nature and extent of inmate's riminality and current and prospective social problems. Analyzes collected data nd develops and initiates treatment plan. Interviews inmate and consults with nployees of institution, such as supervisory personnel, CLINICAL PSYHOLOGIST (profess. & kin.) 045.107-022, and CLERGY MEMBER (profess. kin.) 120.107-010, to evaluate inmate's social progress, and counsels inmate ncerning perceived problems. Reports inmate's progress and makes recommendations to parole officials. Assists inmate with matters concerning detainers, sentences in other jurisdictions, and writs. Confers with inmate's family to identify family needs prior to inmate's release. Occasionally conducts collective counseling for small groups of inmates. Lectures groups of newly admitted inmates to inform them of institution rules and regulations.

GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 86

195.107-046 PROBATION-AND-PAROLE OFFICER (profess. & kin.)

Counsels juvenile or adult offenders in activities related to legal conditions of probation or parole: Confers with offender, legal representatives, family, and other concerned persons, and reviews documents pertaining to legal and social history of offender to conduct prehearing or presentencing investigations and to formulate rehabilitation plan. Compiles reports, testifies in court, and makes recommendations concerning conditional release or institutionalization of offender. Informs offender or guardian of legal requirements of conditional release, such as visits to office, restitution payments, or educational and employment stipulations. Counsels offender and family or guardian, helps offender to secure education and employment, arranges custodial care, and refers offender to social resources of community to aid in rehabilitation. Evaluates offender's progress on follow-up basis including visits to home, school, and place of employment. Secures remedial action by court if necessary. May be employed by correctional institution, parole board, courts system, or separate agency serving court. May specialize in working with either juvenile or adult offenders. May specialize in working with offenders on probation and be designated Probation Officer (profess. & kin.). May specialize in working with offenders on parole and be designated Parole Officer (profess. & kin.).

GOE: 10.01.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 86

195.117-010 ADMINISTRATOR, SOCIAL WELFARE (profess. & kin.) alternate titles: director, social welfare; executive secretary, social welfare; general secretary, social welfare

Directs agency or major function of public or voluntary organization providing services in social welfare field to individuals, groups, or community: Works with board of directors and committees to establish policies and programs and administers such programs. Determines policies and defines scope of services to be rendered within legislative regulations for public welfare agency functioning without board of directors. Assumes responsibility for development and administration of standards and procedures related to personnel, including staff development, budget, and physical facilities. Interprets agency purpose and program to community. Establishes and maintains relationships with other agencies and organizations in community toward meeting community needs and services. Prepares, distributes, and maintains variety of reports. Inspects agency operations and facilities to ensure agency meets standards and procedures criteria. May direct or coordinate fund raising, public relations, and fact finding or research activities. Employed in settings such as child welfare, community welfare councils, family casework, youth serving agencies, health organizations, informal education, and recreation, including scouting and Y's, public welfare, and fund raising. May work in specific area of social welfare and be designated Director, Child Support Enforcement Program (profess. & kin.); Director, Community Center (profess. & kin.); Director, Social Service (profess. & kin.); Director, Rehabilitation Program (profess. & kin.); Director, Mental Health Agency (profess. & kin.).

GOE: 11.07.01 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 80

195.137-010 CASEWORK SUPERVISOR (social ser.) alternate titles: case supervisor; social work unit supervisor

Supervises and coordinates activities of social-service-agency staff and volunteers, and students of school of social work: Assigns caseloads and related duties, and coordinates activities of staff in providing counseling services to assist clients with problems of emergency or crisis nature. Assists agency staff members through individual and group conferences in analyzing case problems and in improving their diagnostic and helping skills. Reviews case records and evaluates performance of staff members and recommends indicated action. Participates in developing and implementing agency administrative policy. Counsels clients individually or in groups on planned or experimental basis and in emergencies. Trains new employees in areas such as agency policy, department procedures, and agency or government regulations. Provides in-service training for experienced workers in areas such as new policies, procedures, and regulations. Represents agency in community or in interagency activities. May conduct or direct staff development programs. May train workers is use of computer. Employed in areas such as child welfare, community welfare councils, family casework, youth services, senior citizen services, health services, public welfare, probation and parole, housing relocation, education, and rehabilitation. Usually required to have master's degree from school of social work.

GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 80

195.164-010 GROUP WORKER (social ser.)

Organizes and leads groups, such as senior citizens, children, and street gangs, in activities that meet interests of individual members: Develops recreational, physical education, and cultural programs for various age groups. Demonstrates and instructs participants in activities, such as active sports, group dances and games, arts, crafts, and dramatics. Organizes current-events discussion groups, conducts consumer problem surveys, and performs similar activities to stimulate interest in civic responsibility. Promotes group work concept of enabling members to develop their own program activities through encouragement and leadership of membership discussions. Consults with other community resources regarding specific individuals, and makes referral when indi-

cated. Keeps records. May recruit, train, and supervise paid staff and volunteers. Employed in settings, such as community center, neighborhood or settlement house, hospital, institution for children or aged, youth centers, and housing projects.
GOE: 09.01.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

195.167-010 COMMUNITY ORGANIZATION WORKER (social ser.) alternate titles: community service consultant; information and referral director; program consultant

Plans, organizes, and coordinates programs with agencies and groups concerned with social problems of community: Promotes and coordinates activities of agencies, groups, and individuals to meet identified needs. Studies and assesses strength and weakness of existing resources. Interprets needs, programs, and services to agencies, groups, and individuals involved and provides leadership and assistance. Prepares reports and disseminates information. Maintains contact with representatives of other organizations to exchange and update information on resources and services available. May write proposals to obtain government or private funding for projects designed to meet needs of community. May assist in budget preparation and presentation. May assist in raising funds. Works in specialized fields such as housing, urban renewal and redevelopment, and health or in public or voluntary coordinating agency, such as community welfare or health council, or combined fund raising and welfare planning council. Works with special groups such as elderly, financially disadvantaged, juvenile delinquents, or physically or mentally handicapped. Usually required to have degree from school of social work. May direct and coordinate activities of volunteers or practicum students.
GOE: 11.07.01 STRENGTH: S GED: R5 M3 L5 SVP: 8 DLU: 81

195.167-014 COMMUNITY-RELATIONS-AND-SERVICES ADVISOR, PUBLIC HOUSING (social ser.) alternate titles: tenant relations coordinator

Promotes tenant welfare in low income public housing developments: Initiates and maintains liaison between local housing authority and voluntary and public agencies for development and managements of public housing developments. Facilitates establishment of constructive relationships between tenants and housing management, and among tenants. Secures social services, such as health, welfare, and education programs for improving family and community standards. Provides leadership to tenants in development of group activities, such as adult education and recreation. Refers families with personal problems to community resources. Cooperates with other organizations in development of understanding and interest among voluntary and public agencies participating in long range plans for urban improvement.
GOE: 11.07.01 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 77

195.167-018 DIRECTOR, CAMP (social ser.)

Directs activities of recreation or youth work camp: Plans programs of recreational and educational activities. Hires and supervises camp staff. Arranges for required licenses, certificates, and insurance coverage to meet health, safety, and welfare standards for campers and for camp operation. Keeps records regarding finances, personnel actions, enrollments, and program activities related to camp business operations and budget allotments.
GOE: 11.11.02 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

195.167-022 DIRECTOR, FIELD (social ser.) alternate titles: field director

Coordinates activities of civilian aids engaged in providing recreational and welfare services to armed forces personnel: Directs staff in planning and arranging recreational activities. Oversees activities of welfare workers in assisting service personnel to solve personal and family problems. May plan and direct organization of specialized services in foreign cities to meet needs of service personnel and dependents stationed abroad.
GOE: 11.07.01 STRENGTH: S GED: R5 M4 L5 SVP: 7 DLU: 77

195.167-026 DIRECTOR, RECREATION CENTER (social ser.)

Plans, organizes, and directs comprehensive public and voluntary recreation programs at recreation building, indoor center, playground, playfield, or day camp: Studies and analyzes recreational needs and resources. Oversees and assigns duties to staff. Interprets recreation programs and their philosophy to individuals and groups through personal participation and staff assignments. Schedules maintenance and use of facilities. Coordinates recreation program of host agency, such as settlement house, institution for children or aged, hospital, armed services, or penal institution, with related activity programs of other services or allied agencies. Cooperates with recreation and nonrecreation personnel. Works under direction of RECREATION SUPERVISOR (profess. & kin.).
GOE: 11.11.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

195.167-038 REHABILITATION CENTER MANAGER (government ser.)

Coordinates activities and provides for physical and emotional needs of public-welfare recipients housed in indigent camp: Cooperates with welfare department investigators, psychologists, and physicians in assigning activities to indigents and in providing specialized attention to them in accordance with recommendations. Appoints leaders of activities, such as food preparation and maintenance of grounds, from camp inmates in accord with democratic leadership principles and welfare department policy. Coordinates sanitation, food management, health, education, spiritual counseling, and vocational activity programs in conformity with available facilities, needs of camp inmates, and policy of department. Interviews inmates and arranges with business and community leaders to place them in jobs. Maintains discipline and arbitrates disputes. Arranges for entertainment, such as movies, lectures, and musical programs. Maintains camp records, inventories supplies, and submits requisitions for camp needs.
GOE: 11.07.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

195.167-042 ALCOHOL-AND-DRUG-ABUSE-ASSISTANCE PROGRAM ADMINISTRATOR (government ser.)

Coordinates government programs dealing with prevention and treatment of alcohol and drug abuse problems affecting work performance of employees in private and public sectors of work force: Studies composition of industrial and business communities and state agencies to determine methods of promoting information concerning alcohol and drug abuse prevention and treatment programs to executives and administrators in industry and government. Confers with management personnel to explain purpose and benefits of Employee Assistance Program, and attempts to establish programs in establishments, organizations, and agencies. Consults with representatives of Area Service Providers (professionals in health care, counseling, and other special services) to develop participation in prevention and treatment programs. Instructs personnel in methods of recognizing and identifying employee problems, referring employee to community Area Service Providers, and maintaining records of program-related activities. Consults with management and administrators of participating organizations and Area Service Providers to evaluate progress of program and identify administrative problems. Implements corrective action plan to solve problems. Develops training materials to be used by participating organizations and Area Service Providers. Prepares articles for newspaper and other media to explain purpose of program. Lectures and participates in workshops, radio and television interviews, community meetings, and other organizational functions to promote acceptance and support of program. Prepares grant proposals and reports for submission to department supervisor.
GOE: 11.07.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 86

195.227-010 PROGRAM AIDE, GROUP WORK (social ser.) alternate titles: group leader

Leads group work activities, as directed by agency program staff: Receives instructions from PROGRAM DIRECTOR, GROUP WORK (profess. & kin.) 187.117-046 or GROUP WORKER (social ser.) 195.164-010 prior to initiating therapeutic group activities. Plans program details to meet needs and interests of individual members. Interests participants in various activities, such as arts and crafts and dramatics. Demonstrates techniques for active sports, group dances, and games. Helps develop new skills and interests. May work with part-time or volunteer staff. Works for social service agencies, such as community center, neighborhood house, settlement house, hospital, geriatric residential center, and health care facility.
GOE: 10.02.02 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 89

195.227-014 RECREATION LEADER (social ser.)

Conducts recreation activities with assigned groups in public department of voluntary agency: Organizes, promotes, and develops interest in activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies. Cooperates with other staff members in conducting community wide events and works with neighborhood groups to determine recreation interests and needs of persons of all ages. Works under close supervision of RECREATION SUPERVISOR (profess. & kin.) 187.167-238. Cooperates with recreation and nonrecreation personnel when in agency setting, such as settlement house, institution for children or aged, hospital, armed services, or penal institution.
GOE: 09.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 81

195.227-018 TEACHER, HOME THERAPY (social ser.) alternate titles: child development specialist; development disability specialist; infant educator; parent trainer

Instructs parent of mentally- and physically-handicapped children in therapy techniques and behavior modification: Observes and plays with child and confers with child's parents and other professionals periodically to obtain information relating to child's mental and physical development. Evaluates child's responses to determine levels of child's physical and mental development. Determines parent's ability to comprehend and apply therapeutic and behavior modification techniques and parent's social and emotional needs to formulate teaching plan. Develops individual teaching plan covering self-help, motor, social, cognitive, and language skills development for parents to implement in home. Instructs parents individually or in groups in behavior modification, physical development, language development, and conceptual learning exercises and activities. Revises teaching plan to correspond with child's rate of development. Counsels parents and organizes groups of parents in similar situations to provide social and emotional support for parents. Refers parents and child to social service agencies and facilities for additional services and financial assistance. Consults and coordinates plans with other professionals. Teaches preschool subjects, such as limited vocabulary sign language and color recognition, to children capable of learning such subjects.
GOE: 10.02.03 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 86

195.267-010 ELIGIBILITY WORKER (government ser.)

Interviews applicants or recipients to determine eligibility for public assistance: Interprets and explains rules and regulations governing eligibility and grants, methods of payment, and legal rights to applicant or recipient. Records

and evaluates personal and financial data obtained from applicant or recipient to determine initial or continuing eligibility, according to departmental directives. Initiates procedures to grant, modify, deny, or terminate eligibility and grants for various aid programs, such as public welfare, employment, and medical assistance. Authorizes amount of grants, based on determination of eligibility for amount of money payments, food stamps, medical care, or other general assistance. Identifies need for social services, and makes referrals to various agencies and community resources available. Prepares regular and special reports as required, and submits individual recommendations for consideration by supervisor. Prepares and keeps records of assigned cases.
GOE: 07.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

195.267-018 PATIENT-RESOURCES-AND-REIMBURSEMENT AGENT (government ser.)
Investigates financial assets, properties, and resources of hospitalized retarded and brain-damaged clients to protect financial interests and provide reimbursement of hospital costs: Visits and interviews or contacts by mail or telephone relatives, friends, former employers, pension funds, fraternal and veterans organizations and government agencies. Records documentation of financial resources in patient files. Analyzes data accumulated, such as disability allowances, medicare, medicaid, social security pension, dividends, interest, and insurance, and determines ability to pay for hospitalization. Determines additional sources from which reimbursements can be obtained. Prepares reports and enumerates amounts and sources of reimbursements, including public assistance from social agencies in behalf of patients and families. Reviews patients' records to ensure that reimbursements are maintained. Applies for appointment of conservators to financially protect patients with assets over statutory limits and submits names of appointees to courts. Occasionally attends court hearings to protect patient interests.
GOE: 10.01.02 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 86

195.267-022 CHILD SUPPORT OFFICER (government ser.)
Investigates and analyzes child welfare cases and initiates administrative action to facilitate enforcement of child support laws: Reviews application for child support received from client and examines case file to determine that divorce decree and court ordered judgement for payment are in order. Interviews client to obtain information, such as relocation of absent parent, amount of child support previously awarded, and names of persons who can act as witnesses to support client's claim for support. Locates absent parent and interviews parent to gather data, such as support award, and discusses case with parent to resolve issues in lieu of filing court proceedings. Contacts friends and relatives of child's parents to verify gathered information about case. Computes amount of child support payments. Prepares file indicating data, such as wage records of accused, witnesses, and blood test results. Confers with prosecuting attorney to prepare court case. Determines type of court jurisdiction, according to facts and circumstances surrounding case, and files court action. Confers with court clerk to obtain arrest warrant and to schedule court date for hearing or trial. Monitors child support payments awarded by court to ensure compliance and enforcement of child support laws. Prepares report of legal action taken when delinquency in payments occurs.
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L5 SVP: 7 DLU: 89

195.367-010 CASE AIDE (social ser.) alternate titles: community program aide
Performs community contact work on simpler aspects of programs or cases and assists in providing services to clients and family members, under close and regular supervision and tutorage of CASEWORKER (social ser.) 195.107-010 or CASEWORK SUPERVISOR (social ser.) 195.137-010. Assists in locating housing for displaced individuals and families. Monitors free, supplementary meal program administered by agencies for children and youth from low-income families to ensure cleanliness of facility and that eligibility guidelines are met for persons receiving meals. Assists elderly clients in preparation of forms, such as tax and rent refund forms. Accompanies elderly clients on visits to social, charitable, and government agencies to assist clients with their problems. Submits to and reviews reports and problems with superior. May be designated according to clients serviced as Senior Service Aide (social ser.); Youth Nutritional Monitor (social ser.).
GOE: 10.01.02 STRENGTH: L GED: R4 M3 L3 SVP: 3 DLU: 80

195.367-014 MANAGEMENT AIDE (social ser.)
Aids residents of public and private housing projects and apartments in relocation and provides information concerning regulations, facilities, and services: Explains rules established by owner or management, such as sanitation and maintenance requirements, and parking regulations. Demonstrates use and care of equipment for tenant use. Informs tenants of facilities, such as laundries and playgrounds. Advises homemakers needing assistance in child care, food, money management, and housekeeping problems. Provides information on location and nature of available community services, such as clinics and recreation centers. Keeps records and prepares reports for owner or manangement.
GOE: 07.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

195.367-018 COMMUNITY WORKER (government ser.)
Investigates problems of assigned community and of individuals disadvantaged because of income, age, or other economic or personal handicaps to determine needs: Seeks out, interviews, and assists persons in need of agency services, under direction of professional staff, or refers persons to specific agencies for service. Visits individuals and families in their homes to explain supportive services and resources available to persons needing special assistance. Speaks before neighborhood groups to establish communication and rapport between persons in community and agency, to publicize supportive services available, and to assist in resolving problems facing community concerning housing, urban renewal, education, welfare, unemployment insurance, and crime prevention. Follows up all contacts and prepares and submits reports of activities. May maintain files and records of work activities to provide access to and retrieval of data. May work for police department for purpose of establishing communication between citizens and police officials to promote understanding of functions, purpose, and goals of police in community and assists in resolution of community problems.
GOE: 10.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 86

195.367-022 FOOD-MANAGEMENT AIDE (government ser.) alternate titles: nutrition aide
Advises low-income family members how to plan, budget, shop, prepare balanced meals, and handle and store food, following prescribed standards: Advises clients of advantages of food stamps, how to obtain stamps, and use of stamps during shopping trips. Transports clients to shopping area, using automobile. Observes clients' food selections. Recommends alternate economical and nutritional food choices. Observes and discusses meal preparation. Suggests alternate methods of food preparation. Assists in planning of food budget, utilizing charts and sample budgets. Advises clients on preferred methods of sanitation. Consults with supervisor concerning programs for individual families. Maintains records concerning results of family visits.
GOE: 10.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 86

195.367-026 PREPAROLE-COUNSELING AIDE (government ser.)
Provides individual and group guidance to inmates of correctional facility, who are eligible for parole, and assists in developing vocational and educational plans in preparing inmates for reentry into community life: Conducts inmate orientation sessions to explain programs and resources available to inmates and to induce inmates to join programs. Interviews inmates to record data on individual problems, needs, interests, and attitude. Holds individual and group counseling sessions to discuss programs available that affect inmate's reentry into community life, such as housing and financial aid, veteran's benefits, work release programs, vocational rehabilitation, and job search assistance. Prepares and maintains case folder for each inmate and discusses findings with supervisor to obtain assistance in establishing goals and plan of action for inmates. Conducts followup interview to ascertain inmate progress. Prepares correspondence and applications for medicare, medicaid, veteran benefits, food stamps, and housing. Telephones and corresponds with persons and agencies outside facility to ensure that family and business matters are attended to. Meets with family members at facility to discuss and resolve problems prior to release of inmate. Develops and prepares informational packets for inmate, listing outside agencies and programs that could assist ex-offender upon release.
GOE: 10.01.02 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 86

195.367-030 RECREATION AIDE (social ser.)
Assists RECREATION LEADER (social ser.) 195.227-014 in conducting recreation activities in community center or other voluntary recreation facility: Arranges chairs, tables, and sporting or exercise equipment in designated rooms or other areas for scheduled group activities, such as banquets, wedding receptions, parties, group meetings, or sports events. Welcomes visitors and answers incoming telephone calls. Notifies patrons of activity schedules and registration requirements. Monitors spectators and participants at sports events to ensure orderly conduct. Receives, stores, and issues sports equipment and supplies. May keep attendance records or scores at sporting events, operate audiovisual equipment, monitor activities of children during recreational trips or tours, or perform other duties as directed by RECREATION LEADER (social ser.) 195.227-014.
GOE: 09.01.01 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 86

195.367-034 SOCIAL-SERVICES AIDE (social ser.)
Assists professional staff of public social service agency, performing any combination of following tasks: Interviews individuals and family members to compile information on social, educational, criminal, institutional, or drug history. Visits individuals in homes or attends group meetings to provide information on agency services, requirements, and procedures. Provides rudimentary counseling to agency clients. Oversees day-to-day group activities of residents in institution. Meets with youth groups to acquaint them with consequences of delinquent acts. Refers individuals to various public or private agencies for assistance. May care for children in client's home during client's appointments. May accompany handicapped individuals to appointments.
GOE: 10.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 86

196 AIRPLANE PILOTS AND NAVIGATORS

This group includes occupations concerned with piloting airplanes for the transportation of passengers, freight, and mail, and other purposes, such as crop dusting and the testing of new models; and charting the courses of planes by the use of instruments, charts, celestial observation, and dead reckoning. Must be federally licensed. Includes occupations concerned with the supervision of flight operations and maintenance when a pilot's or navigator's license is required. Includes flight instructors. Ground school instructors are included in Group 099.

196.163-010 FLIGHT-OPERATIONS INSPECTOR (government ser.) alternate titles: air-carrier operations inspector

Conducts examinations and flight tests to determine individual's ability to qualify for aircraft pilot's license. Administers both oral and written examinations to determine applicant's knowledge of flight rules and regulations, communications, and airport landing procedures. Accompanies pilot on check flight to assess flying skill, stability under emergency conditions, and ability to maintain control of aircraft under flying emergencies. Issues pilot's license to individuals meeting standards. Investigates aircraft accidents and complaints to determine cause and responsibility. Prepares accident and flight activity reports. Recommends changes in federal flight rules and regulations based on knowledge of operating conditions, aircraft improvements, and other factors. Observes flight activities of crop dusters, flying schools charter services, private pilots, and other licensed aircraft owners within assigned geographical area to ensure conformance to flight and safety regulations.

GOE: 05.04.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

196.163-014 SUPERVISING AIRPLANE PILOT (government ser.)

Plans, supervises, and participates in activities of personnel engaged in Federal Aviation Administration inflight testing of air navigational aids, air traffic controls, communications equipment, and sites of proposed equipment installations: Schedules and coordinates inflight testing program with ground support crews, air traffic, and military personnel to assure ground tracking, equipment monitoring, and related services. Conducts regularly scheduled and special flights to test equipment under all types of flight conditions including adverse weather, using both manual and automatic controls. Prepares evaluation reports of flight activities and reviews reports prepared by FACILITIES-FLIGHT-CHECK PILOTS (government ser.). Recommends promotion, transfer, and discharge of personnel and authorizes leave. Recommends purchase, repair, or modification of equipment.

GOE: 05.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 8 DLU: 77

196.167-010 CHIEF PILOT (air trans.) alternate titles: airplane pilot, chief

Directs operation of flight department of airline: Conducts indoctrination training for new pilots and refresher training for experienced pilots. Reviews reports on pilot performance and forwards reports to Federal Aviation Administration. Discusses operational and personal problems with subordinates to improve morale and efficiency. Studies technical manuals of airplane and equipment manufacturers and government regulations affecting flight operations to ensure that company training manuals adhere to legal requirements and are adapted to type of aircraft in use. Represents company in advisory capacity during contract negotiations with pilots' union. Accompanies flights to observe performance of pilots [CHECK PILOT (air trans.)]. Conducts training classes for flight personnel covering emergency procedures and use of survival equipment. Directs preparation of flight-crew schedules and assignment of personnel. May interview and hire flight personnel. May pilot airplane on scheduled flights.

GOE: 05.04.01 STRENGTH: L GED: R5 M4 L5 SVP: 9 DLU: 77

196.167-014 NAVIGATOR (air trans.) alternate titles: aerial navigator; airplane navigator

Locates position and directs course of airplane on international flights, using navigational aids, such as charts, maps, sextant, and slide rule: Establishes position of airplane by use of navigation instruments and charts, celestial observation, or dead reckoning. Directs deviations from course required by weather conditions, such as wind drifts and forecasted atmospheric changes. Utilizes navigation aids, such as radio beams and beacons, when available. Keeps log of flight. Must be licensed by Federal Aviation Administration.

GOE: 05.03.01 STRENGTH: S GED: R5 M5 L4 SVP: 6 DLU: 77

196.223-010 INSTRUCTOR, FLYING I (education)

Instructs student pilots in flight procedures and techniques: Accompanies students on training flights and demonstrates techniques for controlling aircraft during taxiing, takeoff, spins, stalls, turns, and landings. Explains operation of aircraft components, such as rudder, flaps, ailerons, compass, altimeter, and tachometer. May give student proficiency tests at termination of training. Is required to hold Commercial Pilot's Certificate, with Instructor's Rating, issued by Federal Aviation Administration.

GOE: 05.04.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

196.223-014 INSTRUCTOR, PILOT (air trans.)

Trains new and experienced company AIRLINE PILOTS (air trans.) in policy and in use of equipment: Instructs new pilots in company regulations and procedures and trains pilots in operation of types of aircraft used by company. Conducts courses for experienced company pilots to familiarize them with new equipment. May conduct review courses in navigation and meteorology. May make flights to observe performance of pilots [CHECK PILOT (air trans.)]. Must hold Commercial Pilot's Certificate, with Instructor's Rating, issued by Federal Aviation Administration.

GOE: 05.04.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 77

196.263-010 AIRPLANE PILOT (agriculture) alternate titles: aerial-applicator pilot; agricultural-aircraft pilot; aircraft pilot; airplane pilot, crop dusting

Pilots airplane or helicopter, at low altitudes, over agricultural fields to dust or spray fields with seeds, fertilizers, or pesticides: Pilots aircraft over field, or drives to field, or studies maps to become acquainted with obstacles or hazards, such as air turbulence, hedgerows, and hills, peculiar to particular field. Arranges for warning signals to be posted. Notifies livestock owners to move livestock from property over which harmful material may drift. Signals AIRPLANE-PILOT HELPER (agriculture) 409.667-010 to load aircraft. Pilots aircraft to dust or spray fields with seeds, fertilizers, or pesticides, and observes field markers and flag waved by AIRPLANE-PILOT HELPER (agriculture) on ground to prevent overlaps of application and to ensure coverage of field. May be accompanied by property owner when piloting aircraft to survey field. May specialize in application of pesticides and be designated Pest-Control Pilot (agriculture).

GOE: 05.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 81

196.263-014 AIRPLANE PILOT, COMMERCIAL (air trans.) alternate titles: commercial pilot; pilot

Pilots airplane to transport passengers, mail, or freight, or for other commercial purposes: Reviews ship's papers to ascertain factors, such as load weight, fuel supply, weather conditions, and flight route and schedule. Orders changes in fuel supply, load, route, or schedule to ensure safety of flight. Reads gauges to verify that oil, hydraulic fluid, fuel quantities, and cabin pressure are at prescribed levels prior to starting engines. Starts engines and taxies airplane to runway. Sets brakes, and accelerates engines to verify operational readiness of components, such as superchargers, carburetor-heaters, and controls. Contacts control tower by radio to obtain takeoff clearance and instructions. Releases brakes and moves throttles and hand and foot controls to take off and control airplane in flight. Pilots airplane to destination adhering to flight plan and regulations and procedures of federal government, company, and airport. Logs information, such as time in flight, altitude flown, and fuel consumed. Must hold commercial pilot's certificate issued by Federal Aviation Administration. May instruct students or pilots in operation of aircraft. May be designated according to federal license held as Transport Pilot (air trans.), or type of commercial activity engaged in as Airplane Pilot (air trans.) or Corporate Pilot (air trans.). May be designated Airplane-Patrol Pilot (business ser.) when piloting airplane over pipelines, train tracks, and communications systems to detect and radio location and nature of damage. May be designated Airplane Captain (air trans.) when in command of aircraft and crew or Airplane First-Officer (air trans.) or Copilot (air trans.) when second in command.

GOE: 05.04.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 81

196.263-018 AIRPLANE PILOT, PHOTOGRAMMETRY (business ser.)

Pilots airplane or helicopter at specified altitudes and airspeeds, following designated flight lines, to photograph areas of earth's surface for mapping and other photogrammetric purposes: Sights along pointers (window blocking) on aircraft to topographical landmarks. Adjusts controls to hold aircraft on course, to ensure required overlap with photographs taken on previous flight line, and to select landmark points as guide for next flight line. Observes dials and moves controls to hold aircraft in level flight to eliminate contour errors in photographs caused by forward and lateral tilt of aircraft.

GOE: 05.04.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

196.263-022 CHECK PILOT (air trans.)

Accompanies AIRPLANE CAPTAINS (air trans.) and AIRPLANE FIRST-OFFICERS (air trans.) periodically, to test and review their proficiency: Observes and evaluates pilot knowledge and skills, utilizing such means as technical manuals, check lists, and proficiency tests. Notes compliance with and infringement of company or Federal Aviation Administration flight regulations. Compiles and issues reports on findings to appropriate company and Federal Aviation Administration officials.

GOE: 05.04.01 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

196.263-026 CONTROLLER, REMOTELY-PILOTED VEHICLE (aircraft mfg.)

Directs flight path of remotely-piloted (drone) photo reconnaissance or target aircraft along predetermined flight course from command center in guide aircraft or ground station: Operates aircraft controls from command center by remote radio and closed circuit video transmission to direct aircraft to take off, follow flight path, and land, utilizing knowledge of aircraft navigation and aircraft flight characteristics. Analyzes performance data and prepares reports covering airframe, guidance, power plant, and mechanical controls of aircraft after ground or flight testing. Confers with engineering, inspecting, and manufacturing personnel concerning success of flight tested aircraft or need for corrective action. May assist with preflight inspection of aircraft. May direct flight path of guided missiles, utilizing remote computerized controls, and be designated Missile-Control Pilot (aircraft mfg.).

GOE: 05.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 87

196.263-030 EXECUTIVE PILOT (any industry) alternate titles: company pilot; corporation pilot; private pilot

Pilots company-owned aircraft to transport company officials or customers, and makes preflight and inflight tests to ensure safety of flight: Files flight plan with airport officials. Obtains weather data and interprets data based on flight plan. Operates radio equipment aboard airplane. May maintain and repair aircraft according to limitations set by A&E license. May represent company on executive level when dealing with business associates, officials, and customers.

GOE: 05.04.01 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

196.263-034 FACILITIES-FLIGHT-CHECK PILOT (government ser.)

Operates airplane equipped with special radio, radar, and other electronic equipment to conduct in-flight testing of air navigational aids, air traffic con-

trols, and communications equipment, and to evaluate sites of proposed equipment installation: Plans flight activities in accordance with test schedule. Plots flight pattern and files flight plan. Informs crewmembers of flight and test procedures. Coordinates flight activities with ground-support crews and air-traffic control. Operates aircraft over designated area at specified altitudes in all types of weather to determine receptivity and other characteristics of airport-control signal and navigation and communications equipment and systems, such as racon, tacan, scater, and atis. Prepares evaluation reports of each flight. Conducts periodic preflight checks of aircraft to ensure proper maintenance and safe operation.
GOE: 05.04.01 STRENGTH: L GED: R5 M5 L4 SVP: 8 DLU: 77

196.263-038 HELICOPTER PILOT (any industry)
Pilots helicopter for purposes such as transporting passengers and cargo: Plans flight, following government and company regulations, and using aeronautical charts and navigation instruments. Inspects helicopter prior to departure to detect leaking hydraulic fluid, inoperative control, low fuel level, or other unsafe condition, following checklist. Pilots helicopter to transport passengers and cargo, conduct search and rescue missions, fight fires, report on traffic conditions, or other purpose. Writes specified information in flight record. May instruct students in operation of helicopter and equipment. Must hold type of pilot's license and certification specified by Federal Aviation Administration for work performed.
GOE: 05.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 81

196.263-042 TEST PILOT (aircraft mfg.) alternate titles: engineering test pilot
Pilots new, prototype, experimental, modified, and production aircraft to evaluate factors such as aircraft's airworthiness, performance, systems operation, and design: Inspects or oversees inspection of aircraft prior to flight to ensure aircraft's readiness for flight. Starts and warms engine, listens to engine sounds at various speeds, and monitors instruments to detect malfunctions. Taxies aircraft to test controls, brakes, and shock absorbers. Radios control tower for takeoff instructions, releases brakes, and moves throttles and hand and foot controls to take off and control aircraft in flight. Operates aircraft controls to perform maneuvers, such as stalls, dives, loops, rolls, turns, and speed runs, to test and evaluate stability, control characteristics, and aerodynamic design. Observes recording, measuring, and operating instruments and equipment during test flight to evaluate aircraft's performance. Prepares report of test results and collaborates with engineering personnel to analyze test data. Assists engineers in preparing master flight plans for testing purposes. May provide instructions for adjustments or replacement of parts. May deliver aircraft to designated receiving point. May train customer in operation of aircraft.
GOE: 05.04.01 STRENGTH: M GED: R5 M4 L4 SVP: 8 DLU: 81

197 SHIP CAPTAINS, MATES, PILOTS, AND ENGINEERS

This group includes occupations concerned with managing and operating vessels. Includes occupations concerned with technical supervision of marine operations for a group of vessels; administrative and technical responsibility for the operation, maintenance, and safety of a passenger or cargo vessel; the planning and supervision of operations and maintenance in the deck and engine departments of a vessel; administration of business affairs, such as purchasing, disbursing, and ensuring compliance with customs and immigration regulations, aboard a vessel; and piloting vessels through rivers, straits, and harbors.

197.130-010 ENGINEER (water trans.) alternate titles: marine engineer; mechanic, marine engine
Supervises and coordinates activities of crew engaged in operating and maintaining propulsion engines and other engines, boilers, deck machinery, and electrical, refrigeration, and sanitary equipment aboard ship: Inspects engines and other equipment and orders crew to repair or replace defective parts. Starts engines to propel ship and regulates engines and power transmission to control speed of ship. Stands engine-room watch during specified periods, observing that required water levels are maintained in boilers, condensers, and evaporators, load on generators is within acceptable limits, and oil and grease cups are kept full. Repairs machinery, using handtools and power tools. Maintains engineering log and bell book (orders for changes in speed and direction of ship). May be required to hold appropriate U.S. Coast Guard license, depending upon tonnage of ship, type of engines, and means of transmitting power to propeller shaft. When more than one ENGINEER (water trans.) is required, may be designated Engineer, Chief (water trans.); Engineer, First Assistant (water trans.); Engineer, Second Assistant (water trans.); Engineer, Third Assistant (water trans.). May be designated according to ship assigned as Barge Engineer (water trans.); Cannery-Tender Engineer (water trans.); Engineer, Fishing Vessel (water trans.); Tugboat Engineer (water trans.). May be designated Cadet Engineer (water trans.) when in training.
GOE: 05.06.02 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 77

197.133-010 CAPTAIN, FISHING VESSEL (fishing & hunt.) alternate titles: skipper
Commands fishing vessel crew engaged in catching fish and other marine life: Interviews, hires, and gives instructions to crew, and assigns crew to watches and quarters. Plots courses on navigation charts and computes positions, using standard navigation aids, such as compass, sextant, clock, radio fix, and navigation tables. Steers vessel and operates electronic equipment, such as radio, sonic depth finder, and radar. Directs fishing operations, using knowledge of fishing grounds and work load capacities of vessel and crew. Records daily activities in ship's log. May purchase supplies and equipment for boat, such as food, fuel, webbing, rope, and cable. May tow and maneuver fish barges at cannery wharf. May contact buyers and make arrangements for sale of catch. May buy fish for resale and be designated Buy-Boat Operator (fishing & hunt.), or haul fish from other fishing vessels to cannery and be designated Captain, Cannery Tender (fishing & hunt.).
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

197.133-014 MASTER, YACHT (water trans.)
Commands yacht cruising on oceans, bays, lakes, and coastal waters: Sets course of yacht, using navigational aids, such as charts, area plotting sheets, compass, and sextant, and steers yacht to avoid reefs, outlying shoals, and other hazards to shipping. Determines geographical position of yacht, using loran or azimuths of celestial bodies. Signals passing ships, using whistle, flashing lights, flags, and radio. Calculates landfall (sighting of land), using electronic sounding devices and following contour lines on chart. Approaches land, utilizing aids to navigation, such as lights, lighthouses, and buoys. Relinquishes command of yacht to PILOT, SHIP (water trans.) to guide yacht through hazardous waters. Maintains yacht's log. May be licensed by U.S. Coast Guard for steam or motor yacht according to waters navigated and tonnage of yacht. May be designated according to waters licensed to navigate as Master, Coastwise Yacht (water trans.); Master, Ocean Yacht (water trans.); or according to yacht commanded as Master, Steam Yacht (water trans.).
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

197.133-018 MATE, FISHING VESSEL (fishing & hunt.) alternate titles: fishing captain
Supervises and coordinates activities of crew aboard fishing vessel. Examines fishing gear and life-saving equipment and orders crew to repair or replace defective gear and equipment. Stands watch during specified periods and determines geographical position of vessel upon request of CAPTAIN, FISHING VESSEL (fishing & hunt.), using loran and azimuths of celestial bodies. Directs activities of workers engaged in capture, preservation, stowing, and refrigeration of fish aboard fishing vessel. Assumes command of fishing vessel in event CAPTAIN, FISHING VESSEL (fishing & hunt.) becomes incapacitated. May locate schools of finfish and other marine life by observation from masthead and relay navigating directions to CAPTAIN, FISHING VESSEL (fishing & hunt.). May be required to hold license issued by U.S. Coast Guard.
GOE: 03.04.03 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 77

197.133-022 MATE, SHIP (water trans.) alternate titles: ship officer
Supervises and coordinates activities of crew aboard ship: Inspects holds of ship during loading to ensure that cargo is stowed according to specifications. Examines cargo-handling gear and lifesaving equipment and orders crew to repair or replace defective gear and equipment. Supervises crew engaged in cleaning and maintaining decks, superstructure, and bridge of ship. Stands watch during specified periods and determines geographical position of ship, upon request of MASTER, SHIP (water trans.), using loran and azimuths of celestial bodies. Assumes command of ship in event MASTER, SHIP (water trans.) becomes incapacitated. May be required to hold license issued by U.S. Coast Guard, depending on waters navigated and tonnage of ship. When more than one MATE, SHIP (water trans.) is required, may be designated Mate, Chief (water trans.) (usually on vessels inspected by U.S. Coast Guard); Mate, First (water trans.) (usually on uninspected vessels); Mate, Fourth (water trans.); Mate, Second (water trans.); Mate, Third (water trans.). May remain in port to relieve another MATE, SHIP (water trans.) who desires to go ashore while ship is in port and be designated Mate, Relief (water trans.).
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

197.133-026 PILOT, SHIP (water trans.)
Commands ships to steer them into and out of harbors, estuaries, straits, and sounds, and on rivers, lakes, and bays: Directs course and speed of ship on basis of specialized knowledge of local winds, weather, tides, and current. Orders worker at helm to steer ship, and navigates ship to avoid reefs, outlying shoals, and other hazards to shipping, utilizing aids to navigation, such as lighthouses and buoys. Signals TUGBOAT CAPTAIN (water trans.) to berth and unberth ship. Must be licensed by U.S. Coast Guard with limitations indicating class and tonnage of vessels for which license is valid and route and waters that may be piloted. May be designated according to vessel commanded as Pilot, Steam Yacht (water trans.); Pilot, Tank Vessel (water trans.).
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L3 SVP: 8 DLU: 77

197.133-030 TUGBOAT CAPTAIN (water trans.)
Commands tugboat to tow barges and ships into and out of harbors, estuaries, straits, and sounds, and on rivers, lakes, and bays: Signals workers on deck to rig towlines to barges or ship to be towed. Determines course and towing speed on basis of specialized knowledge of local winds, weather, tides, and current. Steers tugboat to push or pull barges to destination and to berth and unberth ships, avoiding reefs, outlying shoals, and other hazards to shipping, utilizing navigation devices, such as radar, sonic depth finder, compass and sextant and aids to navigation, such as lighthouses and buoys. Directs placement of suction hose or siphon to pump water from hold of barge, and signals workers to repair leak. Is required to hold license issued by U.S. Coast Guard.
GOE: 05.04.02 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 77

197.133-034 TUGBOAT MATE (water trans.)
Supervises and coordinates activities of crew aboard tugboat: Inspects towing gear and lifesaving equipment, and orders crew to repair or replace defective equipment. Directs activities of crew engaged in rigging towlines to barges or ship to be towed. Supervises crew engaged in cleaning and painting of boat. Stands watch during specified periods, and determines geographical position of boat upon request of TUGBOAT CAPTAIN (water trans.), using loran and azimuths of celestial bodies. Steers tugboat, upon request of TUGBOAT CAPTAIN (water trans.), to push or pull barges to destination and to berth and unberth ships, avoiding reefs, outlying shoals, and other hazards to navigation, utilizing navigation devices, such as compass and sextant, and aids to navigation, such as lighthouses and buoys. Assumes command of tugboat in event TUGBOAT CAPTAIN (water trans.) becomes incapacitated. Is required to hold license issued by U.S. Coast Guard.
GOE: 05.04.02 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

197.137-010 DREDGE MATE (water trans.)
Supervises and coordinates activities of crew aboard dredge (vessel equipped with machinery to excavate under water) used in building of structures in harbors, estuaries, straits, sounds, rivers, lakes, bays, and oceans: Examines dredging gear and lifesaving equipment, and orders crew to repair or replace defective gear and equipment. Stands watch during specified periods, and determines geographical position of ship, upon request of DREDGE CAPTAIN (water trans.), using loran and azimuths of celestial bodies. Directs activities of crew engaged in dredging operations. Assumes command of ship in event DREDGE CAPTAIN (water trans.) becomes incapacitated. Worker required to hold license issued by U.S. Coast Guard.
GOE: 05.12.01 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 77

197.161-010 DREDGE CAPTAIN (water trans.) alternate titles: dredge operator; dredge runner
Commands vessel equipped with machinery for excavating under water to facilitate building structures in harbors, estuaries, straits, sounds, rivers, lakes, bays, and oceans: Sets course of vessel, using navigational aids, such as charts, area plotting sheets, compass, and sextant, and orders worker at helm to steer ship toward excavation site. Determines geographical position of ship, using loran or azimuths of celestial bodies. Directs crew engaged in operating deck winches and lowering dredging equipment. Supervises crew engaged in dredging operations. Verifies depth of excavations to ensure that excavations are made according to requirements. Maintains ship's log. Must be licensed by U.S. Coast Guard for steam, motor, or sail ship according to waters navigated and tonnage of ship.
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L3 SVP: 8 DLU: 77

197.163-010 FERRYBOAT CAPTAIN (water trans.)
Commands ferryboat to transport passengers, motor vehicles, or freight across lakes, bays, sounds, or rivers: Signals crew to close ferry gates and raise loading ramp, and signals engine room to start engines. Determines course and speed of ferryboat on basis of specialized knowledge of local winds, weather, tides, and current. Steers ferryboat, or orders worker at helm to steer ferryboat toward slip (landing pier) on opposite side of water. Inspects ferryboat to ensure that passengers and crew observe regulations pertaining to safe and efficient operation of ferryboat. Signals engine room to reverse engines, and maneuvers ferryboat into slip. Maintains ferryboat's log. Must hold license issued by U.S. Coast Guard, depending on tonnage of ferryboat and waters crossed.
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

197.163-014 MASTER, PASSENGER BARGE (water trans.) alternate titles: barge captain
Commands barge to transport passengers on inland waterways, such as estuaries, lakes, bays, sounds, and rivers: Sets course of barge, using navigational aids, such as charts, area plotting sheets, compass, and sextant. Steers or orders crew worker at helm to steer barge and navigates barge to avoid reefs, outlying shoals, and other hazards to shipping, utilizing aids, such as lights, lighthouses, and buoys. Determines geographical position of barge, using loran and azimuths of celestial bodies. Inspects barge to ensure that passengers and crew observe regulations pertaining to safe and efficient operation of barge. Relinquishes command of barge to PILOT, SHIP (water trans.) to guide barge through hazardous waters. Maintains barge's log. Must be licensed by U.S. Coast Guard for steam or motor barge according to waters navigated and tonnage of barge.
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

197.163-018 MASTER, RIVERBOAT (water trans.) alternate titles: riverboat captain
Commands riverboat to transport passengers, freight, or other cargo along rivers: Determines course and speed of riverboat on basis of knowledge of winds, weather, tides, and current. Steers riverboat or orders crew worker at helm to steer riverboat and navigates boat to avoid reefs, outlying shoals, and other hazards to shipping, utilizing aids to navigation, such as lighthouses and buoys. Inspects riverboat to ensure that passengers and crew observe regulations pertaining to safe and efficient operation of riverboat. Relinquishes command of riverboat to PILOT, SHIP (water trans.) to guide riverboat through hazardous waters. Maintains riverboat's log. Must be licensed by U.S. Coast Guard for steam or motor riverboat according to waters navigated and tonnage of riverboat.
GOE: 05.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

197.167-010 MASTER, SHIP (water trans.) alternate titles: ship's captain
Commands ship to transport passengers, freight, and other cargo across oceans, bays, lakes, and in coastal waters: Sets course of ship, using navigational aids, such as charts, area plotting sheets, compass, and sextant, and orders crew worker at helm to steer ship. Determines geographical position of ship, using loran or azimuths of celestial bodies. Inspects ship to ensure that crew and passengers observe regulations pertaining to safety and efficient operation of ship. Coordinates activities of crewmembers responsible for signaling devices, such as ship's whistle, flashing lights, flags, and radio, to signal ships in vicinity. Calculates landfall (sighting of land), using electronic sounding devices and following contour lines on chart. Avoids reefs, outlying shoals, and other hazards to shipping, utilizing aids to navigation, such as lights, lighthouses, and buoys. Relinquishes command of ship to PILOT, SHIP (water trans.) to guide ship through hazardous waters. Signals TUGBOAT CAPTAIN (water trans.) to berth ship. Maintains ship's log. Must be licensed by U.S. Coast Guard for steam, motor, or sail ship according to waters navigated and tonnage of ship. May be designated according to waters licensed to navigate as Master, Bays, Sounds, And Lakes (water trans.); Master, Coastal Waters (water trans.); Master, Great Lakes (water trans.); Master, Ocean (water trans.).
GOE: 05.04.02 STRENGTH: L GED: R6 M6 L5 SVP: 8 DLU: 77

197.167-014 PURSER (water trans.) alternate titles: ship purser
Coordinates activities of workers aboard ship concerned with shipboard business functions and social activities for passengers: Prepares shipping articles and signs on crew. Maintains payroll records and pays off crews at completion of voyage. Submits passenger and crew sailing lists to governmental agencies as required by regulations. Assists passengers in preparing declarations for customs, arranging for inspections of horticultural items being brought into country, and inspection of documents by immigration authorities. Prepares ship's entrance and clearance papers for foreign ports, and ship's cargo manifests when discharging cargo. Supervises stowage, care, and removal of hold baggage. Arranges for travel and scenic tours at ports of call. Provides banking services and safekeeping of valuables for passengers. Supervises preparing, editing, printing, and distribution of ship's daily newspaper. Plans and conducts games, tournaments, and parties for passengers' enjoyment. May conduct religious services. May provide first aid for passengers and crew.
GOE: 11.11.03 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

198 RAILROAD CONDUCTORS

This group includes occupations concerned with directing the activities of crews on trains carrying passengers, freight, or mail.

198.167-010 CONDUCTOR, PASSENGER CAR (r.r. trans.)
Coordinates activities of train crew engaged in transporting passengers on passenger train: Reads train orders, timetable schedules, and other written instructions received from TRAIN DISPATCHER (r.r. trans.) and discusses contents with LOCOMOTIVE ENGINEER (r.r. trans.) and train crew. Compares watch with that of LOCOMOTIVE ENGINEER (r.r. trans.) to ensure that departure time from station or terminal is in accordance with timetable schedules. Assists passengers to board train. Signals LOCOMOTIVE ENGINEER (r.r. trans.) to begin train run, using radiotelephone, giving hand signals, or by waving lantern. Collects tickets, fares, or passes from passengers. Answers passengers' questions concerning train rules and regulations and timetable schedules. Announces names of train stations and terminals to passengers. Supervises workers who inspect air brakes, airhoses, couplings, and journal boxes and who regulate air-conditioning, lighting, and heating to ensure safety and comfort to passengers. Assists passengers to get off train at stations or terminals. Prepares reports at end of run to explain accidents, unscheduled stops, or delays.
GOE: 11.11.03 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

198.167-014 CONDUCTOR, PULLMAN (r.r. trans.) alternate titles: conductor, sleeping car
Coordinates activities of workers engaged in providing services to passengers of railroad sleeping and lounge cars during trip: Collects tickets and fares from passengers. Supervises workers engaged in providing porter, maid, and meal services. Observes and talks with passengers to ascertain passengers are comfortable, and to answer passenger inquiries. Compiles record of tickets and money received, and destination of and accommodations furnished passengers.
GOE: 09.01.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

198.167-018 CONDUCTOR, ROAD FREIGHT (r.r. trans.)
Coordinates activities of train crew engaged in transporting freight on freight train: Reads train orders, schedules, and other written instructions received from TRAIN DISPATCHER (r.r. trans.) and discusses their contents with LOCOMOTIVE ENGINEER (r.r. trans.) and train crew. Inspects couplings and airhoses to ensure that they are securely fastened. Inspects journal boxes to ensure that they are lubricated. Inspects handbrakes on cars to ensure that they are released before train begins to run. Inspects freight cars to ensure that they are securely sealed. Records number of car and corresponding seal number and compares listing with waybill to ensure accuracy of routes and destinations. Compares watch with watch of LOCOMOTIVE ENGINEER (r.r. trans.) to ensure that departure time from station or terminal is in accordance with timetable schedules. Signals LOCOMOTIVE ENGINEER (r.r. trans.) via radiotelephone or by waving lantern to begin train run. Talks to LOCOMOTIVE ENGINEER (r.r. trans.) and traffic control center personnel via telphone during run to give or receive instructions or information concerning stops, delays, or oncoming trains. Instructs workers to set warning signals in front of and at rear of train during emergency stops to warn oncoming trains. Supervises workers engaged

in inspection and maintenance of cars and mechanical equipment during run to ensure that train is operating efficiently and safely. Records time of departures and arrivals at all destinations. Prepares reports at end of run to explain accidents, unscheduled stops, or delays.
GOE: 11.11.03 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

199 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS, N.E.C.

This group includes occupations concerned with professional, technical, and managerial work, not elsewhere classified.

199.167-010 RADIATION MONITOR (profess. & kin.) alternate titles: health-physics technician; personnel monitor

Monitors personnel, plant facilities, and work environment to detect radioactive contamination, using radiation detectors and other instruments: Measures intensity and identifies type of radiation in working areas, using devices, such as beta-gamma survey meter, gamma-background monitor, and alphabeta-gamma counter. Collects air samples to determine airborne concentration of radioactivity, and collects and analyzes monitoring equipment worn by personnel, such as film badges and pocket detection chambers, to measure individual exposure to radiation. Takes smear test of suspected contaminated area by wiping floor with filter paper and placing paper in scaler to obtain contamination count. Informs supervisors when individual exposures and area radiation levels approach maximum permissible limits. Recommends work stoppage in unsafe areas, posts warning signs, and ropes off contaminated areas. Calculates amount of time personnel may be exposed safely to radiation in area, taking into account contamination count and HEALTH PHYSICIST'S (profess. & kin.) determinations concerning exposure limits of personnel. Instructs personnel in radiation safety procedures and demonstrates use of protective clothing and equipment. Monitors time and intensity of exposure of personnel working in radiation-waste disposal areas. Inspects shipments for contamination, using counter, and tags shipments in which radiation count exceeds specifications. May make periodic urinalyses of personnel and notify supervisors when overexposure to radiation is indicated. Logs data, such as status of areas being decontaminated, rate of radiation exposure to personnel, and location and intensity of radioactivity in contaminated areas. Tests detection instruments against standards to ensure their accuracy. May recommend decontamination procedures.
GOE: 05.03.08 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

199.167-014 URBAN PLANNER (profess. & kin.) alternate titles: city planner; city-planning engineer; land planner; town planner

Develops comprehensive plans and programs for utilization of land and physical facilities of cities, counties, and metropolitan areas: Compiles and analyzes data on economic, social, and physical factors affecting land use, and prepares or requisitions graphic and narrative reports on data. Confers with local authorities, civic leaders, social scientists, and land planning and development specialists to devise and recommend arrangements of land and physical facilities for residential, commercial, industrial, and community uses. Recommends governmental measures affecting land use, public utilities, community facilities, and housing and transportation to control and guide community development and renewal. May review and evaluate environmental impact reports applying to specified private and public planning projects and programs. When directing activities of planning department, is known as Chief Planner (profess. & kin.); Director, Planning (profess. & kin.). Usually employed by local government jurisdictions, but may work for any level of government, or private consulting firms.
GOE: 11.03.02 STRENGTH: S GED: R5 M4 L5 SVP: 8 DLU: 77

199.167-018 ENERGY-CONTROL OFFICER (education)

Monitors energy use and develops, promotes, implements, and coordinates energy conservation program in county school district facilities: Compiles monthly energy report on consumption of electricity, fuel, oil, coal, LP gas, and water in school facilities, listing units consumed and costs. Sets up energy monitoring devices in school facilities that graphically plot energy usage and temperature changes during extended periods of time. Visits school facilities on regular basis to inspect monitoring devices and utilities usage. Determines areas in which energy conservation measures are needed, and compiles needs-assessment report of all school facilities. Monitors energy usage of extracurricular activities in school facilities. Coordinates energy conservation activities in areas with those of local, state, and federal conservation groups. Recommends energy conservation policies to board of education. Presents lectures on resource conservation at teachers' meetings and to civic groups.
GOE: 05.03.08 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 86

199.167-022 ENVIRONMENTAL ANALYST (government ser.)

Directs, develops, and administers state governmental program for assessment of environmental impact of proposed recreational projects: Directs assessment of environmental impact and preparation of impact statements required for final evaluation of proposed actions. Directs identification and analysis of alternative proposals for handling projects in environmentally sensitive manner. Plans for enhancement of environmental setting for each proposed recreational project. Designs and directs special studies to obtain technical environmental information regarding planned projects, contacting and utilizing various sources, such as regional engineering offices, park region laboratories, and other governmental agencies. Prepares and controls budget for functions of impact-statement preparation program. Attends meetings and represents department on subjects related to program.
GOE: 11.05.03 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 86

199.171-010 PROOF TECHNICIAN (ordnance)

Test-fires small arms, artillery weapons, ammunition, and bombs to evaluate mechanical performance and ballistic qualities, such as range, accuracy, bursting effect, and armor-piercing ability: Erects heavy weapons and connects electrical fire-control apparatus according to diagrams and written instructions. Positions small arms in holding fixtures and rigs trigger-pulling device. Loads, aims, and fires weapons. Measures gun barrel pressures and computes velocities of projectile. Examines and measures targets to verify accuracy of weapons and ammunition. Refrigerates, heats, or immerses ammunition in water before firing to verify performance under severe temperature and moisture conditions. Keeps records of observations. Prepares aerial bombs for test-dropping and loads bombs into aircraft. May prepare experimental ammunition and bombs and devise firing methods. May direct helpers. May specialize in testing of specific ordnance and be designated according to type of item involved.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

199.207-010 DIANETIC COUNSELOR (profess. & kin.) alternate titles: dianeticist; scientologist; scientology auditor

Conducts auditing (counseling) sessions designed to guide clients to emotional well-being by relieving clients from effects of past experiences: Questions client according to prescribed procedures while client is in contact with E-meter (electrometer). Listens to client's responses to questioning and observes indicator needle on meter. Interprets movement of needle to determine effectiveness of auditing, utilizing knowledge of dianetic auditing practice. Compiles notes on client responses during session. May be known by titles which reflect various levels of proficiency and responsibility in Scientology organization.
GOE: 10.01.02 STRENGTH: S GED: R5 M3 L4 SVP: 6 DLU: 77

199.251-010 TESTER, FOOD PRODUCTS (any industry) alternate titles: consultant; director of consumer services, nutrition consultant

Develops, tests, and promotes various types of food products: Selects recipes from conventional cookbooks, or develops new recipes for company food products. Prepares and cooks food according to recipe to test quality and standardize procedures and ingredients. Evaluates prepared item as to texture, appearance, flavor, and nutritional value. Records amount and kinds of ingredients and various test results. Suggests new products, product improvements, and promotions for company use or for resale to dealers, manufacturers, or other users. Presents food items at demonstration functions to promote desired qualities, nutritional values, and related characteristics. Samples shipments to verify weights, measures, coding data, and other evaluations for product control. Answers consumer mail.
GOE: 05.05.17 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

199.261-010 TAXIDERMIST (profess. & kin.)

Prepares, stuffs, and mounts skins of birds or animals in lifelike form: Removes skin from dead body with special knives, scissors, and pliers, taking care to preserve hair and feathers in natural state. Rubs preservative solutions into skin. Forms body foundation by building up on wire foundation with papier mache and adhesive tape, to give natural attitude and show form and muscles of specimen. Covers foundation with skin, using specified adhesive or modeling clay. Affixes eyes, teeth, and claws; dresses feathers, and brushes fur to enhance lifelike appearance of specimen. May mount specimen in case with representations of natural surroundings. May make plaster cast of specimen to enhance physical details preparatory to making papier mache mold. May dress-out, preserve, or otherwise prepare animal carcasses preparatory to scientific or exhibition purposes.
GOE: 01.06.02 STRENGTH: M GED: R5 M3 L4 SVP: 7 DLU: 77

199.261-014 PARKING ANALYST (government ser.) alternate titles: engineering technician, parking

Develops plans for construction and utilization of revenue-producing vehicle parking facilitites: Plans and conducts comprehensive field surveys to locate sites for new parking facilities. Analyzes factors such as capacity, turnover, rates, and required property changes relative to proposed sites, and prepares maps, graphs, tracings, and diagrams to illustrate findings. Designs parking lot facilities, including spaces, aisles, driveways, lighting, gates, landscaping, cashier booths, storm drains, grades, and paving details, and prepares cost estimates. Evaluates work performed by contractors to verify conformity to specifications. Keeps log of construction projects and prepares final reports. Reports maintenance problems occurring at facilities to supervisor. Prepares replies to public suggestions and complaints.
GOE: 05.03.06 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 86

199.267-010 BALLISTICS EXPERT, FORENSIC (government ser.) alternate titles: firearms expert

Examines and tests firearms, spent bullets, and related evidence in criminal cases to develop facts useful in apprehension and prosecution of suspects: Examines bullets, bullet fragments, cartridge clips, firearms, and related evidence found at scene of crime or in possession of suspect to identify make and caliber of weapon. Test-fires weapons allegedly used to facilitate microscopic comparison of bullets from test weapon with those discovered at scene of crime. Determines, from knowledge of ballistics theory and standard test procedures, prob-

able angle and distance from which crime weapon was fired, revealing origin of shot. Prepares reports of findings and testifies at inquests, trials, and other hearings to facilitate prosecution or exoneration of suspects on basis of determinations. May perform standardized tests on other articles of evidence, using chemical agents, physical-testing equipment, measuring instruments, and prescribed procedure, to determine relationship of evidence to suspect and to crime. May order and maintain departmental weapons and related equipment. May be designated by rank as Lieutenant, Ballistics (government ser.).
GOE: 02.04.01 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 77

199.267-014 CRYPTANALYST (government ser.) alternate titles: cipher expert; cryptographer; secret-code expert
Analyzes secret coding systems and decodes messages for military, political, or law enforcement agencies or organizations: Examines secret messages for characteristics that reveal coding system employed in message. Analyzes message, using formulas, code books, chemicals, mechanical devices, computers, and knowledge of commonly used coding keys. Decodes entire message and consults books, magazines, government publications, and police files to obtain corroborative evidence. May develop codes or new coding methods.
GOE: 11.08.04 STRENGTH: S GED: R5 M5 L5 SVP: 8 DLU: 77

199.267-018 EXAMINATION PROCTOR (government ser.)
Administers civil service qualifying examinations: Verifies admissions credentials of examinees, maintains order, distributes and collects examination materials, keeps time, and answers questions relative to examination procedures. May participate in oral interviews of candidates. May score examinations, using scoring template or answer sheet.
GOE: 07.01.07 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

199.267-022 EXAMINER, QUESTIONED DOCUMENTS (government ser.) alternate titles: handwriting expert
Examines handwritten material or other questioned documents to identify author, detect forgery, or determine method used to alter documents: Confers with laboratory specialists, such as chemists and photographers, to determine which scientific processes are necessary to effect analysis. Examines hand or typewritten sample to detect characteristics, such as open loop, quaver, or t-cross peculiar to an individual, using microscope. Measures angle or slant to estimate degree to which letters and lines vary from perpendicular, using protractor. Compares paper specimen with manufacturer's samples to ascertain type and source. Compares photographic blowup of written or typed specimen obtained from separate sources to ascertain similarity or differences. Works in consultative capacity to various agencies or organizations, including police force, and testifies in legal proceedings.
GOE: 02.04.01 STRENGTH: L GED: R5 M2 L4 SVP: 6 DLU: 77

199.267-026 POLYGRAPH EXAMINER (profess. & kin.) alternate titles: lie-detection examiner
Interrogates and screens individuals to detect deception or to verify truthfulness, using polygraph equipment and standard polygraph techniques: Attaches apparatus to individual to measure and record changes in respiration, blood pressure, and electrical resistance of skin as result of perspiration changes. Evaluates reactions to questions of a non-emotional nature. Interprets and diagnoses individual's emotional responses to key questions recorded on graph. Visits morgues, examines scene of crime, or contacts other sources, when assigned to criminal case, to gather information for use in interrogating suspects, witnesses, and other persons. Appears in court as witness on matters relating to polygraph examinations, according to formalized procedures. Prepares reports and keeps records on polygraph examinations. May instruct classes in polygraph interrogation techniques, methods, and uses. When analyzing voice stress charted on moving tape by needle of recording device for deception or truthfulness verification, may be designated Psychological Stress Evaluator (profess. & kin.).
GOE: 02.04.02 STRENGTH: L GED: R5 M3 L5 SVP: 5 DLU: 77

199.267-030 TRAFFIC TECHNICIAN (government ser.)
Conducts field studies to determine traffic volume, speed, effectiveness of signals, adequacy of lighting, and other factors influencing traffic conditions: Analyzes traffic volume and interviews motorists at assigned intersections or other areas where congestion exists or where disproportionate number of accidents have occurred [TRAFFIC CHECKER (government ser.)]. Determines average speed of vehicles, using electrical timing devices or radar equipment. Times stoplight or other delays, using stopwatch. Observes lighting, visibility of signs and pavement markings, location of traffic signals, width of street or roadway, and other considerations affecting traffic conditions. Draws graphs, charts, diagrams, and similar aids to illustrate observations and conclusions. Computes mathematical factors for adjusting timing of traffic signals, speed restrictions, and related data, using standard formulas. Prepares drawings of proposed signal installations or other control devices, using drafting instruments. May prepare statistical studies of traffic conditions. May recommend changes in traffic control devices and regulations on basis of findings.
GOE: 05.03.06 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

199.267-034 RESEARCH ASSISTANT II (profess. & kin.) alternate titles: researcher
Analyzes verbal or statistical data to prepare reports and studies for use by professional workers in variety of areas, such as science, social science, law, medicine, or politics: Searches sources, such as reference works, literature, documents, newspapers, and statistical records, to obtain data on assigned subject. Analyzes and evaluates applicability of collected data. Prepares statistical tabulations, using calculator or computer. Writes reports or presents data in formats such as abstracts, bibliographies, graphs, or maps. May interview individuals to obtain data or draft correspondence to answer inquiries. May be designated Legislative Aide (government ser.) when conducting studies to assist lawmakers.
GOE: 11.08.02 STRENGTH: S GED: R5 M3 L5 SVP: 6 DLU: 87

199.267-038 GRAPHOLOGIST (profess. & kin.)
Analyzes handwriting to appraise personal characteristics: Obtains handwriting specimen to observe overall appearance of writing and detailed formation of letters. Measures height of letters and slant of writing, using calibrated templates. Observes individual writing strokes to determine unique or distinguishing characteristics, using ruler and low-power magnifying glass or microscope. Evaluates handwriting sample and interprets findings, according to theories of handwriting analysis. May use diagram to plot writing characteristics.
GOE: 02.04.01 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 89

199.281-010 GEMOLOGIST (jewelry-silver.) alternate titles: gem expert
Examines gemstones, such as jade, sapphires, and rubies, to evaluate their genuineness, quality, and value, utilizing knowledge of gems and market valuations: Examines gem surfaces and internal structure, using polariscope, refractometer, microscope, and other optical instruments, to differentiate between stones, identify rare specimens, or to detect flaws, defects, or peculiarities affecting gem values. Immerses stones in prescribed chemical solutions to determine specific gravities and key properties of gemstones or substitutes, which indicate physical characteristics of stone for gem identification, quality determination, and for appraisal. Grades stones for color, perfection, and quality of cut. Estimates wholesale and retail value of gems, following pricing guides, market fluctuations, and various economic changes that affect distribution of precious stones. May advise customers and others in use of gems to create attractive jewelry items.
GOE: 05.05.14 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

199.361-010 RADIOGRAPHER (any industry) alternate titles: industrial x-ray operator
Radiographs metal, plastics, concrete, or other materials, such as castings, sample parts, pipes, and structural members for flaws, cracks, or presence of foreign materials, utilizing knowledge of radiography equipment, techniques, and procedures: Aligns object on stand between source of x rays and film or plate; or aligns source of gamma rays, such as cobalt or iridium isotope and film or plate on opposite sides of object, manually or using hand or electric truck, chain hoist, or crane. Masks peripheral areas with lead shields. Selects type of radiation source and type of film, and applies standard mathematical formulas to determine exposure distance and time, considering size, mobility, and strength of radiation sources in relation to density and mobility of object. Verifies radiation intensities, using radiation meters. Adjusts controls of x-ray equipment on console or exposes source of radioactivity to take radiograph. Removes and develops film or plate. Monitors working area, using survey meters, to protect personnel area. May replace radioactive isotope source in containers by manipulating tongs from behind protective lead shield. Marks defects appearing on film and assists in analyzing findings. May specialize in x-ray work and be designated X-Ray Technician (any industry).
GOE: 05.03.05 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 77

199.364-010 CITY PLANNING AIDE (profess. & kin.) alternate titles: planning assistant
Compiles data for use by URBAN PLANNER (profess. & kin.) in making planning studies: Summarizes information from maps, reports, field and file investigations, and books. Traces maps and prepares statistical tabulations, computations, charts, and graphs to illustrate planning studies in areas, such as population, transportation, traffic, land use, zoning, proposed subdivisions, and public utilities. Prepares and updates files and records. May answer public inquiries, conduct field interviews and make surveys of traffic flow, parking, housing, educational facilities, recreation, zoning, and other conditions which affect planning studies.
GOE: 11.03.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

199.364-014 SCIENTIFIC HELPER (profess. & kin.) alternate titles: laboratory assistant; research assistant
Performs duties according to type of research in which supervising scientist is engaged, such as collecting rock samples for study by GEOLOGIST (profess. & kin.) or plant specimens for study by BOTANIST (profess. & kin.). Prepares samples for analysis or examination and performs routine laboratory tests. May participate in field explorations, such as mineralogical or geophysical expeditions. May be designated according to field of scientific research.
GOE: 02.04.01 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 77

199.382-010 TELEVISION-SCHEDULE COORDINATOR (radio-tv broad.) alternate titles: log operations coordinator; media coordinator; program schedule clerk
Enters data, such as program and commercial formats, into computer to prepare daily operations schedules and advance program log for newspapers, magazines, traffic or broadcast department: Provides for clearance and rotation of spot-commercial films and slides for television programs, and performs related clerical duties for DIRECTOR PROGRAM (radio-tv broad.) 184.167-030. May compose courtesy, apology, and stay-tuned announcements, using computer. May review overnight television ratings to determine number of viewers watching television programs containing station promotions.

DE: 07.05.01 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 89

9.384-010 DECONTAMINATOR (any industry)

Decontaminates radioactive materials and equipment, using chemical solu-
ns, and sandblasting machine: Reads contamination level, using radiation
eter, and sorts contaminated items by size and radiation level, following spec-
cations. Weighs out and mixes chemical solutions in tank according to pre-
ribed formula, and heats solution, using steam hose. Immerses objects, such
pipes, motors, valves, hose, and containers, in solution for specified time,
ing hoist. Places smaller objects in sandblasting machine, using manipulators
protective gloves, and starts machine to remove greater proportion of con-
mination and reduce immersion time. Places hot (radioactive) waste, such as
eepings and broken sample bottles, into disposal containers to be processed
land or sea burial. Cleans objects having radiation count under specified
ount, using cloth, soap, solvents, wire brush, and buffing wheel. Records
e of material and equipment decontaminated and method used. May accom-
ny coffins of waste to disposal area. May monitor radiation-exposed equip-
ent, plant and hospital areas, and materials, using radiation-detector measuring
struments, such as portable gamma survey meter, Geiger counter, and alpha-beta-gamma survey meter. May determine method of decontamination according to size and nature of equipment, and degree of contamination.
GOE: 02.04.01 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 77

199.682-010 AEROSPACE PHYSIOLOGICAL TECHNICIAN (military ser.)

Operates physiological training devices, such as pressure suits, pressure chamber, parasail equipment, and ejection seats, that simulate flying conditions, to indoctrinate flying personnel to physical and physiological stresses encountered in flight: Interviews trainees to obtain physiological and medical histories to detect evidence of disqualifying conditions, prior to simulated flight. Moves levers, turns knobs, and presses buttons on control panel to regulate gas and airflow, temperature, and barometric pressure in pressure chamber to simulate flying conditions at varying altitudes and speeds. Operates altitude pressure suit control console which adjusts pressure inside flying suits and helmets. Operates parasail training equipment, such as tow reel, tow truck, radio equipment, and meteorological devices. Adjusts seat, harness, and headrest of ejection tower for safety of personnel. Places ammunition in catapult chamber to load catapult for firing. Fires catapult that ejects seat to simulate ejection from aircraft.
GOE: 02.04.02 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

2 CLERICAL AND SALES OCCUPATIONS

This category encompasses two occupational fields: Clerical (Divisions 20 - 24) which includes occupations concerned with compiling, recording, communicating, computing, and otherwise systematizing data; Sales (Divisions 25 - 29) which includes occupations concerned with influencing customers in favor of a commodity or service. Includes occupations closely identified with sales transactions even though they do not involve actual participation. Excluded from this category are clerical occupations primarily associated with a manufacturing process.

20 STENOGRAPHY, TYPING, FILING, AND RELATED OCCUPATIONS

This division includes occupations concerned with making, classifying, and filing primarily verbal records. Includes activities, such as transmitting and receiving data by machines equipped with a typewriter-like keyboard, cold type typesetting, word processing, and operating machines to duplicate records, correspondence, and reports; to emboss data on metal or plastic plates for addressing and similar identification purposes; to sort, fold, insert, seal, address, and stamp mail; and to open envelopes. Occupations concerned primarily with statistical, financial, or other numerical data are found in Division 21.

201 SECRETARIES

This group includes occupations concerned with carrying out minor administrative and general office duties in addition to taking and transcribing dictation. Occupations concerned primarily with taking and transcribing dictation are included in Group 202.

201.162-010 SOCIAL SECRETARY (clerical)

Coordinates social, business, and personal affairs of employer. Confers with employer on contemplated social functions, sends invitations, and arranges for decorations and entertainment. Advises employer on etiquette, dress, and current events. Reads and answers routine correspondence, using typewriter or in own handwriting as situation demands. May manage financial affairs of entire house.

GOE: 07.01.03 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

201.362-010 LEGAL SECRETARY (clerical)

Prepares legal papers and correspondence of legal nature, such as summonses, complaints, motions, and subpoenas, using typewriter, word processor, or personal computer. May review law journals and other legal publications to identify court decisions pertinent to pending cases and submit articles to company officials.

GOE: 07.01.03 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 82

201.362-014 MEDICAL SECRETARY (medical ser.)

Performs secretarial duties, utilizing knowledge of medical terminology and hospital, clinic, or laboratory procedures: Takes dictation in shorthand or using dictaphone. Compiles and records medical charts, reports, and correspondence, using typewriter or word processor. Answers telephone, schedules appointments, and greets and directs visitors. Maintains files.

GOE: 07.01.03 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 86

201.362-018 MEMBERSHIP SECRETARY (nonprofit org.)

Compiles and maintains membership lists, records receipts of dues and contributions, and gives information to members of nonprofit organization: Compiles and maintains membership lists and contribution records. Welcomes new members and issues membership cards. Explains privileges and obligations of membership, discusses organization problems, adjusts complaints, and provides other information to members. Types and sends notices of dues. Collects and records receipts of dues and contributions. Sends newsletters, promotional materials, and other publications to persons on mailing list. May prepare and distribute monthly financial reports to department heads. May assign numbers and codes to new corporate and individual members and input billing schedule into computer. May revise existing membership records, compile list of delinquent dues, and forward information to president.

GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 88

201.362-022 SCHOOL SECRETARY (education)

Performs secretarial duties in public or private school: Composes, or transcribes from rough draft, correspondence, bulletins, memorandums, and other material, using typewriter or computer. Compiles and files student grade and attendance reports and other school records. Greets visitors to school, determines nature of business, and directs visitors to destination. Talks with student encountering problem and resolves problem or directs student to other worker. Answers telephone to provide information, take message, or transfer calls. May order and dispense school supplies. May accept and deposit funds for lunches, school supplies, and student activities. May disburse funds, record financial transactions, and audit and balance student-organization and other school-fund accounts. May take dictation in shorthand and transcribe notes, using typewriter or computer. May maintain calendar of school events. May oversee student playground activities and monitor classroom during temporary absence of teacher.

GOE: 07.01.03 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 81

201.362-026 SCRIPT SUPERVISOR (motion picture; radio-tv broad.)

Compiles and records details of scenes, such as action sequences, physical layout, and costumes used during photographing of motion pictures and television film productions to relieve DIRECTOR, MOTION PICTURE (motion picture) of minor administrative and clerical detail: Reads script and prepares notes of action, properties, and costumes to be used for each scene. Observes filming of production, records scene details, such as position, facial expression, and coiffure of cast members, camera position in relation to cast, position of properties, and condition of costumes, and refers to previously prepared notes to ensure continuity of sequence during subsequent scenes. Listens to dialog and informs cast of deviations from script. Times length of scenes, using stopwatch. Types and distributes script changes to cast and production personnel. Keeps records, such as type of camera and lighting equipment used for each scene, and prepares daily activity and progress reports. May take dictation. May write synopsis of production for advertising or publicity purposes.

GOE: 01.03.01 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

201.362-030 SECRETARY (clerical) alternate titles: secretarial stenographer

Schedules appointments, gives information to callers, takes dictation, and otherwise relieves officials of clerical work and minor administrative and business detail: Reads and routes incoming mail. Locates and attaches appropriate file to correspondence to be answered by employer. Takes dictation in shorthand or by machine [STENOTYPE OPERATOR (clerical) 202.362-022] and transcribes notes on typewriter, or transcribes from voice recordings [TRANSCRIBING-MACHINE OPERATOR (clerical) 203.582-058]. Composes and types routine correspondence. Files correspondence and other records. Answers telephone and gives information to callers or routes call to appropriate official and places outgoing calls. Schedules appointments for employer. Greets visitors, ascertains nature of business, and conducts visitors to employer or appropriate person. May not take dictation. May arrange travel schedule and reservations. May compile and type statistical reports. May oversee clerical workers. May keep personnel records [PERSONNEL CLERK (clerical) 209.362-026]. May record minutes of staff meetings. May make copies of correspondence or other printed matter, using copying or duplicating machine. May prepare outgoing mail, using postage-metering machine. May prepare notes, correspondence, and reports, using word processor or computer terminal.

GOE: 07.01.03 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 89

202 STENOGRAPHERS

This group includes occupations concerned with taking shorthand or speedwriting notes by hand or machine and transcribing them. Occupations concerned with carrying out minor administrative and general office duties in addition to taking and transcribing dictation are found in Group 201.

202.132-010 SUPERVISOR, STENO POOL (clerical)

Supervises and coordinates activities of workers engaged in taking and transcribing dictation of correspondence and reports. Assigns stenographers to executives and department heads to take dictation and transcribe correspondence and memos. Assigns manuscript or recorded messages to workers for transcription. Verifies typed copy for neatness, spelling, and punctuation. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.03 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

202.362-010 SHORTHAND REPORTER (clerical) alternate titles: court reporter; law reporter

Records examination, testimony, judicial opinions, judge's charge to jury, judgment or sentence of court, or other proceedings in court of law by machine shorthand [STENOTYPE OPERATOR (clerical)], takes shorthand notes, or reports proceedings into *steno-mask*. Reads portions of transcript during trial on judge's request, and asks speakers to clarify inaudible statements. Operates typewriter to transcribe recorded material, or dictates material into recording machine. May record proceedings of quasi-judicial hearings and formal and informal meetings and be designated Hearings Reporter (clerical). May be self-employed, performing duties in court of law or at hearings and meetings, and be designated Freelance Reporter (clerical).

GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 6 DLU: 77

202.362-014 STENOGRAPHER (clerical) alternate titles: clerk-stenographer

Takes dictation in shorthand of correspondence, reports, and other matter, and operates typewriter to transcribe dictated material. Performs variety of cleri-

cal duties [ADMINISTRATIVE CLERK (clerical) 219.362-010], except when working in stenographic pool. May transcribe material from sound recordings [TRANSCRIBING-MACHINE OPERATOR (clerical) 203.582-058]. May perform stenographic duties in professional office and be designated Legal Stenographer (clerical); Medical Stenographer (clerical); Technical Stenographer (clerical). May take dictation in foreign language and be known as Foreign-Language Stenographer (clerical). May be designated according to department in which employed as Police Stenographer (government ser.). May work for public stenographic service and be designated Public Stenographer (clerical).
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 87

202.362-018 STENOGRAPHER, PRINT SHOP (print. & pub.)
Takes dictation and operates typewriter to transcribe dictated material and to prepare metal printing plates for use in addressing machines: Takes and transcribes dictation. Operates typewriter to type manuscript in English or foreign language. Operates electromagnetic typewriter to imprint metal printing plates for use in addressing machines. May operate justifying typewriter to produce typed matter with uniform margins. May cut stencils for use in mimeographing machine.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

202.362-022 STENOTYPE OPERATOR (clerical) alternate titles: stenotype-machine operator; steno-typist
Takes dictation of correspondence, reports, and other matter on machine that writes contractions or symbols for full words on paper roll. Operates typewriter to transcribe notes. May dictate notes into recording machine for TRANSCRIBING-MACHINE OPERATOR (clerical) to transcribe.
GOE: 07.05.03 STRENGTH: S GED: R4 M2 L4 SVP: 5 DLU: 77

202.382-010 STENOCAPTIONER (radio-tv broad.)
Operates computerized stenographic captioning equipment to provide *captions* of live television broadcast for hearing-impaired viewers: Discusses program or news story content with broadcast's PRODUCER (radio-tv broad.) 159.117-010 to learn new words and terms which are not included in computer's stenographic glossary. Devises stenographic equivalents of new words or terms and adds them to stenographic glossary. Reviews glossary items before broadcast for words and terms that are likely to be used on-air. Listens to live program dialogue and types stenographic equivalents for words and phrases to provide on-screen captions. May type captions for movie or taped television program [CAPTION WRITER (motion picture; radio-tv broad.) 203.362-026].
GOE: 07.05.03 STRENGTH: S GED: R4 M2 L4 SVP: 8 DLU: 87

203 TYPISTS AND TYPEWRITING-MACHINE OPERATORS

This group includes occupations concerned primarily with recording, transcribing, transmitting, duplicating, and receiving data by means of a typewriter or a machine equipped with a typewriter-like keyboard. Also included are occupations whose duties include substantial typing tasks and occupations concerned with cold-type setting of type. Occupations involving typesetting by metal type or other traditional methods are included in Group 650.

203.132-010 SUPERVISOR, TELEGRAPHIC-TYPEWRITER OPERATORS (clerical) alternate titles: telegraphic-typewriter operator, chief
Supervises and coordinates activities of TELEGRAPHIC-TYPEWRITER OPERATORS (clerical): Assigns duties and monitors sending and receiving of messages. Directs workers keeping files, such as messages, correspondence, instructions, and reports. Inspects equipment and orders repairs of machinery. May operate telegraphic typewriter [TELEGRAPHIC-TYPEWRITER OPERATOR (clerical)]. May transfer operators or regulate work load between stations to ensure even distribution of traffic. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.06.02 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

203.132-014 SUPERVISOR, TRANSCRIBING OPERATORS (clerical) alternate titles: transcribing operator, head
Supervises and coordinates activities of TRANSCRIBING-MACHINE OPERATORS (clerical) in a bank or other business organization, performing duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.06.02 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

203.137-010 SUPERVISOR, WORD PROCESSING (clerical)
Supervises and coordinates activities of workers engaged in operating word processing equipment to prepare correspondence, records, reports, insurance policies, and similar items: Advises other departmental personnel in techniques and style of dictation and letter writing. Recommends changes in procedures to effect savings in time, labor and other costs, and to improve operating efficiency. Assigns new workers to experienced workers for training. Assists subordinates in resolving problems in nonstandard situations. Evaluates job performance of subordinates and recommends appropriate personnel action. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.06.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

203.137-014 TYPING SECTION CHIEF (clerical)
Supervises and coordinates activities of TYPISTS (clerical) engaged in transcribing correspondence from longhand copy, typing reports, and making duplicate copies of correspondence. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.06.02 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

203.362-010 CLERK-TYPIST (clerical)
Compiles data and operates typewriter or computer in performance of routine clerical duties to maintain business records and reports: Types reports, business correspondence, application forms, shipping tickets, and other material. Files records and reports, posts information to records, sorts and distributes mail, answers telephone, and performs similar duties. May compute amounts, using adding or calculating machine. May type on or from specialized forms and be designated Guest-History Clerk (hotel & rest.); Storage-Receipt Poster (clerical). May compile reports and type prescription data on labels in hospital pharmacy and be designated Dispensary Clerk (medical ser.). May be designated: Collection-Card Clerk (clerical); Motor-Pool Clerk (clerical); Order Clerk (utilities); Policy-Issue Clerk (insurance). May operate telex machine to produce records and reports.
GOE: 07.06.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 88

203.362-014 CREDIT REPORTING CLERK (business ser.) alternate titles: crt operator
Compiles, posts, and retrieves credit information, using computer, and reports credit information to subscribers of credit reporting agency: Answers requests received by computer modem, mail, or telephone from subscribers for information about credit applicants. Identifies caller by code. Enters inquiry into computer to retrieve requested information. Transmits information to subscriber, using computer and modem, reads information to subscriber over telephone, or generates printout for mailing to subscriber. Compiles and enters credit information into computer.
GOE: 07.06.01 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

203.362-026 CAPTION WRITER (motion picture; radio-tv broad.) alternate titles: subtitle writer
Operates computerized captioning system to provide *captions* for movies or taped television productions for hearing-impaired viewers, and to provide captions (subtitles) in English or foreign language: Listens to dialogue of production and writes caption phrases for dialogue. Watches production and reviews captions simultaneously to determine which caption phrases to leave in, which to revise, and where captions should be placed on screen. Enters commands to edit and place captions, and to synchronize captions with dialogue. May write captions to describe music and background noises. May discuss captions with DIRECTOR, MOTION PICTURE (motion picture) 159.067-010, DIRECTOR, TELEVISION (radio-tv broad.) 159.067-014, PRODUCER (motion picture) 187.167-174, or PRODUCER (radio-tv broad.) 159.117-010. May translate foreign language dialogue into English language captions, or translate English dialogue into foreign language captions. May oversee encoding of captions to master tape of television production.
GOE: 07.05.03 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 87

203.382-014 CANCELLATION CLERK (insurance) alternate titles: memorandum-statement clerk; policy-cancellation clerk; premium-cancellation clerk; premium-card-cancellation clerk; termination clerk
Cancels insurance policies as requested by agents: Receives computer printout of cancellation data or retrieves expiration card from file. Checks number on card with number of policy. Computes refunds, using calculator, adding machine, and rate tables. Types cancellation correspondence and mails with canceled policy to policyholder. Types cancellation notice and routes to bookkeeping department for recording. Mails cancellation notice to agent.
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

203.382-018 MAGNETIC-TAPE-COMPOSER OPERATOR (print. & pub.) alternate titles: composing-machine operator
Operates magnetic-tape recording and typographic composing machine to prepare copy used for offset printing of forms, documents, advertisements, and other matter, following copy and layout instructions and using knowledge of typesetting and typing techniques: Clips copy and instructions to copy holder. Inserts blank tape cartridges on tape-station hubs and starts recorder to thread tape. Selects and attaches specified type-font element to typewriter carrier. Adjusts margins and other spacing mechanisms to set line justification. Types from marked copy, using electric typewriter that simultaneously produces proof copy and master tape. Types in composer control codes according to program sequence to allow change of type font and format. Proofreads copy. Makes corrections by strikeover on proof copy, automatically correcting identical material on master tape, or retypes corrected portions only, generating correction tape. Reference codes correction tape to error location in original copy and tape. Removes tape cartridges from recorder and installs cartridges, with correction tape, if any, into composer-output printer. Installs specified type font and sets escapement and vertical spacing controls. Keys in layout and composing codes on control panel, following program sequence. Inserts coated paper and starts composer. Operates composer controls in response to function-light indicators and changes type font and format as work progresses. Removes copy from composer, examines copy for errors, and makes necessary corrections. May specialize in operation of recorder or composer units. May operate varitype machine to set headline copy [VARITYPE OPERATOR (clerical)]. May prepare final camera-ready copy and layout, using waxing machine and drafting tools and equipment.
GOE: 07.06.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

203.382-026 VARITYPE OPERATOR (clerical)
Operates one or variety of electrically powered typewriting machines equipped with changeable type fonts to typeset master copies, such as stencils,

direct plates, photo-offsets, and tracings, for reproduction of copies having printed appearance: Plans layout of page elements (illustrations, headlines, and text) from rough draft or specifications, using knowledge of design. Pastes up preprinted type and reproduction proofs on master layout, using paste and brush. Determines size and style of type, horizontal and vertical spacing, and margins, using knowledge of typesetting. Calculates anticipated dimensions of photo-offset copy to be enlarged or reduced, using arithmetic percentages. Attaches fonts to type holder. Attaches gear to platen to control spacing between lines. Moves lever to control spacing between characters. Sets stops to control right margin. Changes style and size of type by pressing type-change key and turning font from reserve to typing position. May draw decorative or illustrative designs on copy. May lay out and rule forms and charts, using drafting tools.
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

203.382-030 WORD PROCESSING MACHINE OPERATOR (clerical)
Operates word processing equipment to compile, type, revise, combine, edit, print, and store documents: Compiles material to be typed, following written or oral instructions. Reads instructions accompanying material, or follows verbal instructions from supervisor or person requesting document, to determine format and content required. Enters commands, flips switches, and presses buttons to establish spacing, margins, type size, style, and color, and other parameters, using computer and word processing software or other word processing equipment. Types, revises, and combines material such as correspondence, reports, records, forms, minutes of meetings, scientific or technical material, numerical data, and tabular information, from rough draft, corrected copy, recorded voice dictation, or previous version displayed on screen. Checks completed document on screen for spelling errors, using software. Proofreads and edits document for grammar, spelling, punctuation, and format. Corrects errors. Stores completed document in machine memory or on data storage medium, such as disk. Enters commands to print document. May load paper in printer and change printer ribbon, print wheel, or fluid cartridges. May keep record of work performed. May input data for revision or editing, using data entry device other than keyboard, such as optical scanner. Variations in means by which tasks are accomplished result from brand of computer, printer, other word processing equipment, and software used.
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 86

203.562-010 WIRE-TRANSFER CLERK (financial) alternate titles: funds transfer clerk
Transfers funds or securities and maintains records of transactions, using computer: Types, transmits, and receives funds transfer messages on computer terminal to or from other banks and Federal Reserve Bank. Records funds or securities transferred and disposition, using computer. May maintain file of customers requiring daily transfer of funds or securities. May verify or assign code number to telecommunication messages.
GOE: 07.06.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 89

203.582-010 BRAILLE OPERATOR (print. & pub.)
Operates machine, similar to typewriter, to impress dots in metal sheets for making braille books, transcribing from prepared copy or original script: Inserts metal sheet into machine carriage. Depresses one or combination of keys to form braille letter. Depresses pedal that forces punches to impress on metal sheet combinations of dots that distinguish braille letters. If worker is blind, transcribes from recorded rather than manuscript copy.
GOE: 07.06.02 STRENGTH: L GED: R3 M1 L3 SVP: 4 DLU: 77

203.582-014 BRAILLE TYPIST (education; nonprofit organ.; print. & pub.) alternate titles: braille coder; braille transcriber
Operates braille typewriter to transcribe reading matter for use by the blind: Reads copy and operates braille typewriter to emboss specially treated paper with various combinations of dots that characterize braille alphabet, using braille code form.
GOE: 07.06.02 STRENGTH: S GED: R4 M1 L3 SVP: 5 DLU: 77

203.582-018 CRYPTOGRAPHIC-MACHINE OPERATOR (clerical) alternate titles: code clerk; cryptographic technician
Operates cryptographic equipment to code, transmit, and decode secret messages for units of armed forces, law enforcement agencies, or business organizations: Selects required code according to instructions, using code book. Inserts specified code card into machine station to program encoding machine. Types plain text data on keyboard of automatic machine which encrypts and transmits message, or on semiautomatic machine which converts plain text into taped code for transmission via teletype machine. Feeds incoming tape into decoder device on semiautomatic machine and distributes decoded messages. Resolves garbled or undecipherable messages, using cryptographic procedures and equipment or requests retransmission of message. May operate teletype or teleprinter equipment to transmit messages. May operate radio to send and receive data.
GOE: 07.06.02 STRENGTH: S GED: R4 M2 L3 SVP: 5 DLU: 77

203.582-038 PERFORATOR TYPIST (clerical)
Operates special typewriter that perforates tape or paper for subsequent automatic reproduction of data, such as letters, reports, and other material from master copy: Pastes gummed paper over holes to correct errors. May file perforated rolls. May operate automatic typewriter that reproduces material from perforated tape or paper and be designated Typewriter Operator, Automatic (clerical). Important variations are kinds (trade names) of machines used.
GOE: 07.06.02 STRENGTH: S GED: R3 M1 L3 SVP: 4 DLU: 77

203.582-042 PHOTOCOMPOSING-PERFORATOR-MACHINE OPERATOR (print. & pub.)
Operates automatic photocomposing-perforator machine equipped with keyboard to copy data from manuscript onto tape used in photocomposing machine: Inserts *paper tape* in perforator. Clips copy in copy holder and starts perforator mechanism. Sets indexed dials to select line length, type size, film feed, and type face specified on manuscript. Depresses keys of keyboard to perforate coded signals in paper tape for subsequent activation of photocomposing machine. Removes perforated tape from perforator. Important variables are trade names of system operated. May operate similar machine equipped with video display terminal to edit and correct perforated tape as indicated by PROOFREADER (print. & pub.) on reproduction proof.
GOE: 07.06.02 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

203.582-046 PHOTOCOMPOSITION-KEYBOARD OPERATOR (print. & pub.)
Operates keyboard of computer terminal equipped with video display screen to record data from manuscript for storage and retrieval into and from computer system for subsequent reproduction as printed matter: Reads instructions on worksheet to obtain codes which direct specific computer activity and depresses command keys on terminal keyboard to store or retrieve data. Reads manuscript and types on keyboard to record and store data into computer memory. Reads corrected proof sheet and depresses keys to retrieve specified portions of text for display on video screen. Observes screen to locate text to be corrected and types corrections. Maintains log of activities. If worker operates similar equipment to perforate *paper tape* used to activate photocomposing machine, see PHOTOCOMPOSING-PERFORATOR-MACHINE OPERATOR (print. & pub.).
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

203.582-050 TELEGRAPHIC-TYPEWRITER OPERATOR (clerical) alternate titles: telegraph operator, automatic
Operates telegraphic typewriter to send and receive messages: Turns on machine and types identifying code for station called or acknowledges calls from other stations. Types outgoing messages when stations are connected. Reads incoming messages to detect errors and presses lever to stop transmission when messages are garbled or overlined. Types requests for clarification. Enters date, time, and serial number on messages sent and received. Pastes messages received on tape on paper forms. May type messages on tape attachment and transmit them by inserting tape into machine when stations are connected. May be designated according to system used as Multiplex-Machine Operator (tel. & tel.). Important variations are kinds (trade names) of telegraphic typewriters operated.
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

203.582-054 DATA ENTRY CLERK (clerical) alternate titles: data entry operator
Operates keyboard or other data entry device to enter data into computer or onto magnetic tape or disk for subsequent entry: Enters alphabetic, numeric, or symbolic data from source documents into computer, using data entry device, such as keyboard or optical scanner, and following format displayed on screen. Compares data entered with source documents, or re-enters data in verification format on screen to detect errors. Deletes incorrectly entered data, and re-enters correct data. May compile, sort, and verify accuracy of data to be entered. May keep record of work completed.
GOE: 07.06.01 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 89

203.582-058 TRANSCRIBING-MACHINE OPERATOR (clerical) alternate titles: dictating-machine transcriber; dictating-machine typist
Operates typewriter or word processor/computer to transcribe letters, reports, or other recorded data heard through earphones of transcribing machine: Inserts cassette tape into cassette player or positions tape on machine spindle and threads tape through machine. Positions earphones on ears and presses buttons on transcribing machine to listen to recorded data. Turns dials to control volume, tone, and speed of voice reproduction. Depresses pedal to pause tape. Types message heard through earphones. Reads chart prepared by dictator to determine length of message and corrections to be made. May type unrecorded information, such as name, address, and date. May keep file of records. May receive and route callers [RECEPTIONIST (clerical) 237.367-038]. May be designated by subject matter transcribed as Legal Transcriber (clerical); Medical Transcriber (clerical).
GOE: 07.06.02 STRENGTH: S GED: R3 M1 L3 SVP: 5 DLU: 86

203.582-062 TYPESETTER-PERFORATOR OPERATOR (print. & pub.) alternate titles: perforator operator
Operates keyboard of tape perforator machine to type visible proof copy and copy data from manuscript onto tape used for producing automatic type composition: Secures roll of tape and blank stationery in machine magazine. Turns adjustment screws to set indicator scale that controls counting mechanism according to type size and width of line to be composed. Positions copy in copyholder and depresses keys on keyboard to punch tape. Observes justification (even margin) points on indicator scale to determine when to end line. Removes completed roll of tape for delivery to typesetting machines. May be designated by type of machine operated as Justowriter Operator (print. & pub.).
GOE: 07.06.02 STRENGTH: S GED: R3 M1 L3 SVP: 4 DLU: 77

203.582-066 TYPIST (clerical)
Operates typewriter or computer to type and revise documents: Compiles material to be typed. Reads instructions accompanying material, or follows verbal

instructions from supervisor or person requesting document, to determine format desired, number of copies needed, priority, and other requirements. Types and revises material such as correspondence, reports, statistical tables, addresses, and forms, from rough draft, corrected copy, recorded voice dictation, or previous version displayed on screen, using typewriter or computer and word processing software. May verify totals on report forms, requisitions, or bills. May operate duplicating machine to reproduce copy. May be designated according to material typed, as Address-Change Clerk (insurance); Endorsement Clerk (insurance); Policy Writer (insurance); Record Clerk (hotel & rest.); Statistical Typist (clerical). May be designated: Application-Register Clerk (insurance); Filing Writer (insurance); Master-Sheet Clerk (insurance); Mortgage-Papers-Assignment-and-Assembly Clerk (insurance); Stencil Cutter (clerical); Tabular Typist (clerical); Title Clerk, Automobile (clerical).
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 88

203.582-078 NOTEREADER (clerical)
Operates typewriter to transcribe stenotyped notes of court proceedings, following standard formats for type of material transcribed: Reads work order to obtain information, such as type of case, case number, number of copies required, and spelling of participants' names. Reviews form books to ascertain format required for specified document, and adjusts typewriter settings for indentation, line spacing, and other style requirements. Operates typewriter to transcribe contractions and symbols of stenotyped text into standard language form. Proofreads typed copy to identify and correct errors and to verify format specifications. Copies typed documents, using copying machines. May use automatic or manual stenotype noteholder.
GOE: 07.06.02 STRENGTH: S GED: R3 M1 L3 SVP: 5 DLU: 86

205 INTERVIEWING CLERKS

This group includes occupations concerned with interviewing and eliciting information. Work frequently involves assisting persons in completing application forms, verifying information obtained, and performing various clerical tasks in relation to records prepared. Clerical occupations concerned with eliciting and recording information and making determinations for such purposes as extending credit, resolving customer complaints, and adjusting claims, are found in Group 241.

205.137-014 SUPERVISOR, SURVEY WORKERS (clerical) alternate titles: area coordinator; field supervisor
Supervises and coordinates activities of workers engaged in interviewing people to compile statistical information about topics, such as public issues or consumer buying habits: Recruits and hires interviewers. Trains interviewers in method of approaching public, asking questions, and recording answers. Supplies interviewers with names or addresses of persons to contact or instructs them in sampling methods used in compiling contact lists. Reviews questionnaires for completeness and accuracy. Verifies work of interviewers by telephoning persons interviewed to review answers and evaluate personal manner of interviewers. Tallies number of calls made and questionnaires completed by interviewers. Reviews, classifies, and sorts questionnaires, following specified procedures and criteria.
GOE: 07.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

205.162-010 ADMITTING OFFICER (medical ser.)
Coordinates activities related to admission of patients in hospital or other medical facility: Confers with physicians, and nursing, housekeeping, transport, and other staff members to coordinate and schedule admission of patient. Assigns accommodations based on physician's admittance orders, patient's preference, nature of illness, availability of space, and other information, and enters bed assignment information into computer. Prepares records of admission, transfer, and other required data. Notifies departments of patient's admission. Reviews clerical work of interviewers and other personnel. Keeps records of admissions and discharges, and compiles occupancy-census data. May interview patient or patient's representative to obtain necessary personal and financial data to determine eligibility for admission. May perform duties described under SUPERVISOR (clerical) Master Title.
GOE: 07.04.01 STRENGTH: S GED: R4 M2 L3 SVP: 7 DLU: 89

205.362-010 CIVIL-SERVICE CLERK (government ser.) alternate titles: appointment clerk; recruitment clerk
Keeps records of selection and assignment of personnel in office that recruits workers from civil service register: Mails announcements of examinations and blank application forms in response to requests. Performs reception duties and answers questions about examinations, eligibility, salaries, benefits, and other pertinent information. Issues application forms to applicants at counter. Reviews applications for completeness, accuracy, and eligibility requirements. Files application forms, test papers, and records. Reviews examination ratings and places names of eligibles on register. Refers names from register to agency head and notifies eligible applicants of appointment. Posts results of interviews on file cards. Requests references from present or past employers concerning applicants. Types reports and forms. May keep records, such as group life insurance and retirement payments. May administer civil service examinations to applicants.
GOE: 07.04.04 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

205.362-014 EMPLOYMENT CLERK (clerical) alternate titles: interviewer; reception interviewer
Interviews applicants for employment and processes application forms: Interviews applicants to obtain information, such as age, marital status, work experience, education, training, and occupational interest. Informs applicants of company employment policies. Refers qualified applicants to employing official. Types letters to references indicated on application, or telephones agencies, such as credit bureaus and finance companies. Files applications forms. Compiles and types reports for supervisors on applicants and employees from personnel records. May review credentials to establish eligibility of applicant in regard to identification and naturalization. May telephone or write applicant to inform applicant of acceptance or rejection for employment. May administer aptitude, personality, and interest tests. May compile personnel records [PERSONNEL CLERK (clerical)].
GOE: 07.04.01 STRENGTH: S GED: R4 M2 L4 SVP: 5 DLU: 77

205.362-018 HOSPITAL-ADMITTING CLERK (medical ser.) alternate titles: admissions clerk; clinic clerk; hospital-receiving clerk; medical clerk
Interviews incoming patient or representative and enters information required for admission into computer: Interviews patient or representative to obtain and record name, address, age, religion, persons to notify in case of emergency, attending physician, and individual or insurance company responsible for payment of bill. Explains hospital regulations, such as visiting hours, payment of accounts, and schedule of charges. Escorts patient or arranges for escort to assigned room or ward. Enters patient admitting information into computer and routes printed copy to designated department. Obtains signed statement from patient to protect hospital's interests. May assign patient to room or ward. May compile data for occupancy and census records. May store patient's valuables. May receive payments on account.
GOE: 07.04.01 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 88

205.362-022 IDENTIFICATION CLERK (clerical) alternate titles: security clerk
Compiles and records personal data about civilian workers, vendors, contractors, military personnel, and dependents of military personnel at defense installation and prepares badges, passes, and identification cards: Interviews applicants to obtain and verify information, such as name, date of birth, physical description, and type of security clearance held. Corresponds with law enforcement officials, previous employers, and other references to obtain applicant's social, moral, and political background for use by department in determining employment acceptability. Photographs new workers, using automatic identification camera. May fingerprint workers and keep other supplemental identification systems. May keep records of badges issued, lost, and reissued. May issue temporary identification badges to visitors.
GOE: 07.04.01 STRENGTH: S GED: R3 M1 L3 SVP: 3 DLU: 77

205.362-026 CUSTOMER SERVICE REPRESENTATIVE (financial)
Opens accounts, explains and processes investments and other financial services, and corrects records: Interviews customers to obtain information and explain available financial services, such as savings and checking accounts, Individual Retirement Account, Certificates of Deposit, savings bonds, and securities. Rents safe deposit boxes. Types account information obtained from customer on record card or form, and enters into computer. Answers customer questions and investigates and corrects errors, following customer and establishment records, and using calculator or computer. Presents funds received from customer to TELLER (financial) 211.362-018 for deposit, and obtains receipt for customer. May help customer complete loan application. May obtain credit records from credit reporting agency. May admit customers to safe deposit vault. May execute wire transfers of funds.
GOE: 07.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 90

205.362-030 OUTPATIENT-ADMITTING CLERK (medical ser.)
Interviews new outpatients at hospital or clinic and records data on medical charts: Obtains specified information from patient, such as age, insurance coverage, and symptoms, and types information onto prescribed forms. Places records and blank history sheets in order and files them in folder. Schedules appointments for examinations in hospital clinics, according to nature of illness. Gives general information about outpatient care and answers telephone. May tally number of outpatients entering each day or week. May give first aid.
GOE: 07.04.01 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

205.367-010 ADMISSIONS EVALUATOR (education) alternate titles: administrative assistant; degree clerk
Examines academic records of students to determine eligibility for graduation or for admission to college, university, or graduate school: Compares transcripts of courses with school entrance or degree requirements and prepares evaluation form listing courses for graduation. Studies course prerequisites, degree equivalents, and accreditation of schools, and computes grade-point averages to establish students' qualifications for admission, transfer, or graduation. Explains evaluations to students. Refers students with academic discrepancies to proper department heads for further action. Types list of accepted applicants or of degree candidates and submits it for approval. Issues registration permits and records acceptances and fees paid. Performs related duties, such as preparing commencement programs and computing student averages for honors. May advise students concerning their eligibility for teacher certificates. May specialize in evaluation of transfer students' records and be designated Evaluator, Transfer Students (education).
GOE: 07.01.05 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

205.367-014 CHARGE-ACCOUNT CLERK (clerical) alternate titles: credit-card interviewer; new-account interviewer
Interviews customers applying for charge accounts: Confers with customer to explain type of charge plans available. Assists customer in filling out applica-

tion or completes application for customer. Reviews applications received by mail. Files credit applications after credit department approves or disapproves credit. May check references by phone or form letter and notify customer of acceptance or rejection of credit [CREDIT CLERK (clerical)]. May verify entries and correct errors on charge accounts [CUSTOMER-COMPLAINT CLERK (clerical)], using adding machine. May answer credit rating requests from banks and credit bureaus. May issue temporary shopping slip when credit references appear satisfactory.
GOE: 07.04.01 STRENGTH: S GED: R3 M2 L3 SVP: 2 DLU: 77

205.367-018 CLAIMS CLERK II (insurance) alternate titles: loss-claim clerk

Prepares reports and insurance-claim forms for damage or loss against insurance companies: Obtains information from insured to prepare claim form. Forwards report of claim or claim form to insurance company. Acts as intermediary between company and insured. May assist in settling claims.
GOE: 07.04.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

205.367-022 CREDIT CLERK (clerical) alternate titles: loan clerk

Processes applications of individuals applying for loans and credit: Interviews applicant to obtain personal and financial data and fills out application. Calls or writes to credit bureaus, employers, and personal references to check credit and personal references. Establishes credit limit, considering such factors as applicant's assets, credit experience, and personal references, based on predetermined standards. Notifies customer by mail, telephone, or in person of acceptance or rejection of application. May keep record or file of credit transactions, deposits, and payments, and sends letters or confers with customers having delinquent accounts to make payment [COLLECTION CLERK (clerical) 241.357-010]. May send form letters and brochures to solicit business from prospective customers. May adjust incorrect credit charges and grant extensions of credit on overdue accounts. May accept payment on accounts. May keep record of applications for loans and credit, using computer. May compute interest and payments, using calculator. May provide customer credit information or rating on request to retail stores, credit agencies, or banks. May check value of customer's collateral, such as securities, held as security for loan. May advise customer by phone or in writing about loan or credit information. May assist customer in filling out loan or credit application.
GOE: 07.04.01 STRENGTH: S GED: R4 M3 L4 SVP: 4 DLU: 88

205.367-026 CREEL CLERK (government ser.)

Interviews anglers and inspects catch to compile statistical data concerning recreational fishing: Greets anglers returning from recreational fishing and solicits permission to examine catch. Counts and examines fish to ascertain total caught and to identify species and sex. Collects deformed or diseased fish for analysis by others. Measures and weighs fish, using ruler and scale. Interviews anglers to determine state of residence, method and location of fishing, and type of bait used. Records data obtained and tabulates results.
GOE: 07.04.01 STRENGTH: L GED: R3 M3 L3 SVP: 2 DLU: 77

205.367-030 ELECTION CLERK (government ser.) alternate titles: poll clerk; returning officer

Performs any combination of the following duties during elections: Compiles and verifies voter lists from official registration records. Requests identification of voters at polling place. Obtains signatures and records names of voters to prevent voting of unauthorized persons. Distributes ballots to voters and answers questions concerning voting procedure. Counts valid ballots and prepares official reports of election results.
GOE: 07.04.03 STRENGTH: S GED: R3 M2 L2 SVP: 2 DLU: 77

205.367-034 LICENSE CLERK (government ser.)

Issues licenses or permits to qualified applicants: Questions applicant to obtain information, such as name, address, and age, and records data on prescribed forms. Evaluates information obtained to determine applicant qualification for licensure. Collects prescribed fee. Issues driver, automobile, marriage, or other license. May conduct oral, visual, written, or performance test to determine applicant qualifications.
GOE: 07.04.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 78

205.367-038 REGISTRAR (government ser.) alternate titles: entrance guard

Registers visitors to public facilities, such as national or state parks, military bases, and monuments: Stops vehicles and pedestrians at gate and records name, nationality, home address, license plate number of vehicle, and time of entrance and departure. Cautions visitors about fires, wild animals, travel hazards, and domestic pets and informs them of laws and regulations pertaining to area. May issue information leaflets. May collect fees and issue entry and fire permits. May give talks describing historical, natural, or scenic points of area.
GOE: 07.04.03 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

205.367-042 REGISTRATION CLERK (government ser.)

Interviews persons to compile information for legal or other records: Records answers to personal history queries, such as date of birth, length of residence in United States, and change of address to enroll persons for voting, citizenship applications, or other purposes. May record number of applicants registered. May fingerprint registrants [FINGERPRINT CLERK (government ser.) I]. May take affidavits concerning registrants' statement.
GOE: 07.04.01 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

205.367-046 REHABILITATION CLERK (nonprofit org.)

Compiles, verifies, and records client data in vocational rehabilitation facility: Interviews clients to obtain information, such as medical history and work limitations. Prepares and assists clients to complete routine intake and personnel forms. Gives and receives client information in person, by telephone, or mail to authorized persons. Prepares and types client attendance, training, and counseling reports from client records. Reviews training approval forms and payment vouchers for completeness and accuracy.
GOE: 07.04.01 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

205.367-050 SUPERVISOR, CONTINGENTS (retail trade)

Interviews and hires applicants for contingent (temporary and part-time) work and keeps employment records: Reviews applications and hires applicants. Notifies applicants by mail or telephone to report for work. Prepares and approves payroll vouchers. Keeps employment records. Compiles list of workers qualified for contingent employment. May schedule work assignments.
GOE: 07.04.01 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

205.367-054 SURVEY WORKER (clerical) alternate titles: interviewer; merchandising representative; public interviewer

Interviews people and compiles statistical information on topics, such as public issues or consumer buying habits: Contacts people at home or place of business, or approaches persons at random on street, or contacts them by telephone, following specified sampling procedures. Asks questions following specified outline on questionnaire and records answers. Reviews, classifies, and sorts questionnaires following specified procedures and criteria. May participate in federal, state, or local population survey and be known as Census Enumerator (government ser.).
GOE: 07.04.01 STRENGTH: L GED: R3 M1 L2 SVP: 2 DLU: 81

205.367-058 TRAFFIC CHECKER (government ser.)

Interviews motor vehicle drivers at specified road intersection or highway to secure information for use in highway planning: Places equipment, such as barricades, signs, and automatic vehicle counting devices. Signals driver to stop, presents identification credentials, and explains reason for halting vehicle. Questions driver to obtain data, such as itinerary and purpose of trip. Records results of interview, and permits driver to continue journey. May secure information on load (either passenger or cargo) carried and type and weight of vehicle.
GOE: 07.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

205.367-062 REFERRAL CLERK, TEMPORARY HELP AGENCY (clerical) alternate titles: referral clerk; staffing clerk

Compiles and records information about temporary job openings and refers qualified applicants from register of temporary help agency: Answers call from hospital, business, or other type of organization requesting temporary workers and obtains and records job requirements. Reviews records to locate registered workers who match job requirements and are available for scheduled shift. Notifies selected workers of job availability and records referral information on agency records. Sorts mail, files records, and performs other clerical duties. May give employment applications to applicants, schedule interviews with agency registration interviewers, or administer skill tests. May refer workers in specific occupations, such as nursing.
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 86

205.567-010 BENEFITS CLERK II (clerical) alternate titles: insurance and benefits clerk

Answers employees' questions and records employee enrollment in benefits and group insurance programs: Explains and interprets company insurance program to employees and dependents. Answers questions regarding benefits, such as pension and retirement plan, and group insurance, such as life, hospitalization, and workers' compensation. Fills out application forms or verifies information on forms submitted by employees. Mails applications to insurance company. Files records of claims and fills out cancellation forms when employees leave company service. May correspond with or telephone physicians, hospitals, and employees regarding claims.
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 80

206 FILE CLERKS

This group includes occupations concerned with classifying, sorting, and filing correspondence, records, and other data.

206.137-010 SUPERVISOR, FILES (clerical) alternate titles: records-section supervisor

Supervises and coordinates activities of workers engaged in maintaining central records files: Directs and assists workers in storing, retrieving, checking, correcting, and copying paper documents, microfilm, or other company records. Directs workers in searching files to retrieve lost or missing records, utilizing knowledge of frequent filing errors. Routes erroneously removed files to workers for refiling. Directs and assists workers in periodic disposal of obsolete files, following company policy and legal requirements. Conducts and coordinates studies of files and filing system as directed by management. May recommend changes in work procedures to improve filing-system efficiency. May supervise workers engaged in microfilming records. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.05.03 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 88

206.367-010 ENGINEERING-DOCUMENT-CONTROL CLERK (aircraft mfg.; electron. comp.) alternate titles: blueprint control clerk; drawing-release clerk; engineering-release clerk; release and technical records clerk

Compiles and maintains control records and related files to release blueprints, drawings, and engineering documents to manufacturing and other operating departments: Examines documents, such as blueprints, drawings, change orders, and specifications to verify completeness and accuracy of data. Confers with document originators or engineering liaison personnel to resolve discrepancies and compiles required changes to documents. Posts changes to computerized or manual control records, releases documents, and notifies affected departments. Maintains related files. May prepare requests for reproduction of documents. May operate reproduction equipment. May prepare reports and memorandums.
GOE: 07.05.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 89

206.367-014 FILE CLERK II (clerical)

Files correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order, or according to subject matter, or other system [FILE CLERK (clerical) I 206.387-034], searches for and investigates information contained in files, inserts additional data on file records, completes reports, keeps files current, and supplies information from file data. Classifies material when classification is not readily discernible [CLASSIFICATION CLERK (clerical) 206.387-010]. Disposes of obsolete files in accordance with established retirement schedule or legal requirements. May copy records on photocopying or microfilming machines. May type labels or reports. May make calculations or use calculating machine to keep files current. May be designated according to material filed.
GOE: 07.05.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 87

206.367-018 TAPE LIBRARIAN (clerical)

Classifies, catalogs, and maintains library of computer tapes: Classifies reels and cartridges of magnetic computer tape according to content, purpose, principal user, date generated, or other criteria. Assigns identification number, following standard system. Prepares catalog of tapes classified, using logbook and computer. Stores tapes according to classification and identification number. Issues tapes and maintains charge-out records. Inspects returned tapes and notifies supervisor when tapes are worn or damaged. Removes obsolete tapes from library, following data retention requirements. May send tapes to vendor for cleaning and to off-site location for secure storage. May maintain files of program developmental records and operating instructions. May work in computer room operations, performing tasks such as loading and removing paper and printouts and reels of tape.
GOE: 07.05.03 STRENGTH: L GED: R4 M2 L3 SVP: 4 DLU: 89

206.387-010 CLASSIFICATION CLERK (clerical) alternate titles: coding file clerk

Classifies materials according to subject matter and assigns numbers or symbols from predetermined coding system to facilitate accurate filing and reference: Scans correspondence, reports, drawings, and other materials to be filed to determine subject matter. Ascertains specified number or symbol, using code book or chart, and marks or stamps code on material. Assigns cross-indexing numbers if subject matter should be classified and filed under more than one heading. May revise coding system to improve code usage.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 80

206.387-014 FINGERPRINT CLERK II (government ser.)

Examines fingerprint patterns and classifies prints according to standard system: Examines fingerprints, using magnifying glass, to determine pattern formations. Classifies fingerprints according to standard system and records classification on file cards. Files records, following prescribed sequence. Searches fingerprint identification files to provide information to authorized persons.
GOE: 07.05.03 STRENGTH: S GED: R4 M2 L3 SVP: 4 DLU: 77

206.387-022 RECORD CLERK (textile)

Keeps files of sample pads, slubbings (slightly twisted fibers), and yarns for color comparison and stock reference: Attaches identification tags indicating data, such as color blend, batch number, and date of shipment, to sample pads, slubbings, and yarns, and files them. Files order forms, formula cards, and color percentage cards. May make sample pads from slubbings [PAD MAKER (textile)].
GOE: 07.07.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

206.387-034 FILE CLERK I (clerical)

Files records in alphabetical or numerical order, or according to subject matter or other system: Reads incoming material and sorts according to file system. Places cards, forms, microfiche, or other material in storage receptacle, such as file cabinet, drawer, or box. Locates and removes files upon request. Keeps records of material removed, stamps material received, traces missing files, and types indexing information on folders. May verify accuracy of material to be filed. May enter information on records. May examine microfilm and microfiche for legibility, using microfilm and microfiche viewers. May color-code material to be filed to reduce filing errors. May be designated according to subject matter filed, such as Change-of-Address Clerk (clerical); or according to material filed, such as File Clerk, Correspondence (clerical).
GOE: 07.07.01 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 87

206.587-010 BRAND RECORDER (government ser.)

Records brand marks used to identify cattle, produce, or other commodities, to facilitate identification: Receives applications for new brands and verifies against official brand records to prevent duplication. Records assignment or reassignment of brands beside name of appropriate individual or organization. Receives and records brand recording fees and submits brand certificates for approval. Keeps files of reports compiled by field inspectors to prevent frauds and unauthorized use of brands.
GOE: 07.05.03 STRENGTH: S GED: R3 M1 L2 SVP: 4 DLU: 77

207 DUPLICATING-MACHINE OPERATORS AND TENDERS

This group includes occupations concerned with making copies by means of office machines. Three major duplicating processes used are: photocopy (including photographic), spirit (or fluid), and stencil (ink). An image created by one of these processes is either transferred directly, as with the photocopying machine, or indirectly, as with the offset duplicating machine. Also included is the duplicating of braille-printed pages on chemically treated plastic paper. This group does not include offset printing machine and press occupations which are found in Groups 651 and 652.

207.137-010 CHIEF CLERK, PRINT SHOP (clerical)

Supervises and coordinates activities of workers in duplicating department: Analyzes requisitions for duplicating to determine method of reproduction, based on requested completion date, and availability and specialization of machines and machine operators. Keeps file indicating priority, date due, and status of job. Examines material in process and suggests improved methods of reproduction. Oversees machine preventive-maintenance program. May confer with persons requesting printing or duplicating to determine preference of methods and materials. May keep stock of duplicating material and requisition material. May keep supply of standard forms and issue forms on requisition. Performs other duties as described under SUPERVISOR (clerical) Master Title. May supervise workers engaged in making microfilm or microfiche copies of records and be designated Micrographics-Services Supervisor (clerical).
GOE: 05.10.05 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

207.682-010 DUPLICATING-MACHINE OPERATOR I (clerical)

Operates machine to reproduce data or ruled forms on paper from type in flat impression bed or plates on revolving cylinder: Selects type or embossed plate and positions type or plate on cylinder or flat bed of machine. Loads paper in feed tray and makes adjustments to parts, such as inking rolls or ribbon and feeding mechanism. Starts machine which automatically pushes sheets under revolving cylinder or against flat impression bed of type where paper is printed. May keep record of number of copies made. Important variations may be indicated by trade name of machines used.
GOE: 05.10.05 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

207.682-014 DUPLICATING-MACHINE OPERATOR II (clerical)

Operates duplicating machine to print typewritten or handwritten matter directly from master copy: Places master copy on drum of machine and blank paper in feed tray. Adjusts machine for speed, size of paper, and flow of process liquid to moistening pad. Starts machine that pulls blank sheets across moistening pad and transfers image from master copy onto copy sheet. May type or draw diagram to prepare original copy. Important variations may be indicated by trade name of machine operated.
GOE: 05.12.19 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

207.682-018 OFFSET-DUPLICATING-MACHINE OPERATOR (clerical)

Operates offset-duplicating machine to reproduce single or multicolor copies of charts, schedules, bulletins, and related matter, according to oral instructions or layout and stock specifications on job order: Installs sensitized metal printing plate or master copy of plastic-coated paper around press cylinder of machine and locks plate or master copy into position, using handtools. Turns handwheel and ink fountain screws to regulate ink flow. Selects paper stock to be printed according to color, size, thickness, and quantity specified, stacks paper on feed table, and positions spring guide on side of paper stack. Turns elevator crank to raise feed table to paper height. Sets dial controls to adjust speed and feed of machine according to weight of paper. Starts machine that automatically reproduces copy by offset process. Cleans and files master copy or plate. Cleans and oils machine. May prepare printing plates. May operate stencil-process or spirit-duplicating machines and photocopy equipment. Important variations may be indicated by trade names of machines used.
GOE: 05.10.05 STRENGTH: M GED: R3 M2 L1 SVP: 5 DLU: 77

207.685-010 BRAILLE-DUPLICATING-MACHINE OPERATOR (print. & pub.) alternate titles: braille-thermoform operator

Tends equipment to reproduce braille-embossed pages, using one of following methods: (1) Places master page on screen bed. Places roll of treated paper on stand. Threads paper through equipment and locks paper in clamping frame. Pulls heat unit over clamping frame. Depresses pedal or handle to lower clamping frame onto screen bed and to create vacuum that forms braille impressions. Pushes heat unit from bed. Releases pedal or handle to raise clamping frame, and releases catch on frame to draw reproduced copy through equipment. Repeats process to make required number of copies. Cuts copies apart, using scissors. Writes identifying information, such as page number or title, on each copy. (2) Positions master page on screen bed. Places sheet of heat-sensitive plastic paper over page and lowers clamping frame to lock page into position on bed. Pulls heat unit over clamping frame to activate vacuum pump trip-lever. Holds heat unit over frame to form braille impressions. Pushes heat

unit from bed to release vacuum. Raises frame to release individual copy. Repeats process to make required number of copies. Most workers in this occupation are blind.
GOE: 05.12.19 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

207.685-014 PHOTOCOPYING-MACHINE OPERATOR (clerical)
Tends duplicating machine to reproduce handwritten or typewritten matter: Places original copy on glass plate in machine. Places blank paper on loading tray. Sets control switch for number of copies. Presses button to start machine which transfers image of original copy onto blank paper by photographic and static electricity process. May clean and repair machine. May receive payment for duplicate copies. Important variables may be indicated by trade name of machine tended.
GOE: 05.12.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

207.685-018 PHOTOGRAPHIC-MACHINE OPERATOR (clerical)
Tends machine that photographs original documents, such as bills, statements, receipts, and checks: Loads machine with film. Feeds records to be photographed into feed rolls that carry material to be photographed past camera lens, or positions records on table beneath camera lens. May adjust camera distance from document, focus, and exposure settings to accommodate size of record and ensure clarity and resolution of image. May tend equipment which encases roll film in cartridges or mounts microfiche (sheet of microfilm) on aperture card.
GOE: 05.12.19 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 87

208 MAILING AND MISCELLANEOUS OFFICE MACHINE OPERATORS

This group includes mailing and miscellaneous office machine occupations, not elsewhere classified, concerned with using machines to record data; to emboss data on metal or plastic plates for addressing and identification purposes; to sort and fold printed or typewritten matter; to insert, seal, address, and stamp mail; and to open envelopes. Occupations involving substantial typing duties and use of machines equipped with typewriter-like keyboards to record data or to typeset printed matter, using methods other than preparation of metal plates or 'slugs' are found in Group 203. Occupations concerned with operating automatic data processing equipment are found in Group 213.

208.382-010 TERMINAL-MAKEUP OPERATOR (print. & pub.) alternate titles: ad-terminal-makeup operator
Operates computer terminal and related equipment to transfer and typeset display advertising data from perforated tape onto computer tapes for subsequent reproduction as printed matter: Secures perforated tape roll on machine reel and presses button to feed perforated tape into terminal console. Presses button to activate video display screen. Reads work order to determine combination of type style, point size, line width, and spacing to be set. Pushes terminal controls and depresses keys to observe and arrange elements on screen according to specifications. Measures copy margins to verify margin specifications, using ruler. Presses buttons to transfer typeset copy onto computer tape and into computer for storage.
GOE: 07.06.01 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

208.462-010 MAILING-MACHINE OPERATOR (print. & pub.)
Operates machine that automatically addresses, weighs, and ties into bundles printed publications, such as magazines, catalogs, and pamphlets, for mailing according to zip code: Reads production order to determine type and size of publication scheduled for mailing. Adjusts guides, rollers, loose card inserter, weighing machine, and tying arm, using rule and handtools. Fills paste reservoir. Mounts roll of subscriber address labels onto machine spindle and threads twine through tying arm. Starts machine and observes operation to detect evidence of malfunctions throughout production run. Stops machine to make adjustments or clear jams. Records production according to customer name and zip code, and machine down time due to malfunctions or lack of work.
GOE: 06.04.38 STRENGTH: M GED: R4 M2 L3 SVP: 5 DLU: 77

208.582-010 ADDRESSING-MACHINE OPERATOR (clerical)
Operates machine to print addresses, code numbers, and similar information on items, such as envelopes, accounting forms, packages, and advertising literature: Positions plates, stencils, or tapes in machine magazine and places articles to be addressed into loading rack. Starts machine that automatically feeds plates, stencils, or tapes through mechanism. Adjusts flow of ink and guides to fit size of paper and sets stops and selectors so that only certain plates will be printed, using wrench and pliers. Maintains plate file and operates embossing machine or typewriter to make corrections, additions, and changes on plates. May type statistical lists of plate files and correspondence concerning addressing jobs.
GOE: 05.12.19 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

208.582-014 EMBOSSING-MACHINE OPERATOR I (clerical) alternate titles: name-plate-stamping-machine operator; plate embosser
Operates machine to emboss names and addresses on metallic and nonmetallic plates for use in duplicating or addressing machines or for use as nameplates and tags: Adjusts plate carriage for each size plate, and clamps blank plates in holder. Reads copy to be embossed and turns handwheel to set character or letter die in embossing position. Pulls lever to lower die and emboss character on plate. Trips levers or presets automatic controls to space letters, words, and lines. May insert plates in envelopes. May insert plates in frames and file alphabetically. May operate pantograph type engraving machine to engrave plates [ENGRAVER PANTOGRAPH (engraving) I]. Important variations may be indicated by trade name of machine operated.
GOE: 06.02.02 STRENGTH: S GED: R3 M1 L2 SVP: 4 DLU: 77

208.682-010 EMBOSSING-MACHINE OPERATOR II (clerical) alternate titles: embosser operator; plate embosser
Operates electrically powered machine to emboss metal plates for use in duplicating and addressing machines: Places blank plate in holder. Depresses keys on keyboard to imprint characters on plate, copying name and address from form or work ticket. Removes embossed plate and inserts plate in indexed file according to work ticket specifications. May operate manually powered embossing machine [EMBOSSING-MACHINE OPERATOR (clerical) I]. May operate addressing and duplicating machines.
GOE: 06.02.02 STRENGTH: S GED: R3 M1 L2 SVP: 4 DLU: 77

208.685-010 COLLATOR OPERATOR (clerical)
Tends machine that assembles pages of printed material in numerical sequence: Adjusts control that regulates stroke of paper pusher, according to size of paper. Places pages to be assembled in holding trays. Starts machine. Removes assembled pages from machine.
GOE: 05.12.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

208.685-014 FOLDING-MACHINE OPERATOR (clerical) alternate titles: folder operator
Tends machine that folds advertising literature, forms, letters, or other paper sheets: Turns indicator knobs to adjust folding rollers, side guides, and stops, according to specified size and number of folds. Starts machine and feeds paper sheets between folding rollers. Removes folded sheets. May place folded sheets into envelopes preparatory to mailing.
GOE: 05.12.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

208.685-018 INSERTING-MACHINE OPERATOR (clerical)
Tends machine that inserts printed matter, such as letters or booklets into folders or envelopes: Stacks quantities of inserts and covers into machine feedboxes and turns setscrews to adjust feeder mechanisms, according to thickness of material. Starts machine and replenishes feedboxes with inserts and covers.
GOE: 05.12.19 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

208.685-022 MICROFILM MOUNTER (clerical)
Tends machine that automatically mounts developed microfilm onto cards for filing purposes: Inserts roll of microfilm into machine. Fills hopper with presorted cards. Pours specified amount of adhesive solution into hopper to coat cards. Starts machine and observes coating of cards with adhesive solution and mounting of film onto cards.
GOE: 05.12.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

208.685-026 SEALING-AND-CANCELING-MACHINE OPERATOR (clerical) alternate titles: envelope-stamping-machine operator; letter-stamping-machine operator; postage-machine operator
Tends machine that automatically seals envelopes and prints postage and postmark onto envelopes or tape to be affixed onto packages: Turns indicator dials to specified letters and numbers to be printed. Starts machine and positions envelopes onto feed tray or secures roll of tape on machine spindles. Removes postmarked envelopes or tape. May weigh articles to determine required postage, using scale and postal code book. May be designated according to particular function as Canceling-Machine Operator (clerical); Envelope-Sealing-Machine Operator (clerical); Stamping-Machine Operator (clerical).
GOE: 05.12.19 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

208.685-034 WING-MAILER-MACHINE OPERATOR (print. & pub.)
Tends machine that affixes address labels to advertising matter preparatory to mailing: Adjusts wing (feed guides) to accommodate size of article to be labeled and places stack of unlabeled articles between guides. Mounts roll of preaddressed labels onto machine spindle. Fills reservoir with water or paste. Moves handle and turns rubber wheel to feed label over roller or brush that applies water or paste and under blade that automatically cuts labels from roll and applies label to mailing piece. Removes labeled article from machine and stacks on table, exposing unlabeled article for labeling.
GOE: 05.12.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

209 STENOGRAPHY, TYPING, FILING, AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with making, classifying, and filing records.

209.132-010 SUPERVISOR, PERSONNEL CLERKS (clerical)
Supervises and coordinates activities of workers engaged in compilation and maintenance of personnel records: Coordinates recording and filing of information about company personnel, such as promotions, wage scales, absences, training status, and discharges. Compiles reports of absences, accession rates, salaries, and other matters of interest to company management, using typewriter

and calculator. Performs other duties as described under SUPERVISOR (clerical) Master Title. May hire and discharge subordinates. May discuss merit ratings with company employees to inform employees of progress or to assist in correcting deficiencies.
GOE: 07.05.03 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

209.132-014 TECHNICAL COORDINATOR (government ser.)
Supervises and coordinates activities of workers engaged in processing applications and claims in water rights office: Prepares correspondence and takes dictation. Examines applications for errors. Prepares notices for owners to close, clean, deepen, repair, or replace wells. Prepares closing notices for publication. Plats descriptions on documents, using drafting tools. Answers telephone and personal inquiries. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.05.03 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

209.137-010 MAILROOM SUPERVISOR (clerical)
Supervises and coordinates activities of clerks who open, sort, and route mail, and prepare outgoing material for mailing: Reads letters and determines department or official for whom mail is intended and informs MAIL CLERK (clerical) of routing. Computes amount of postage required for outgoing mail according to weight and classification. Computes cost of mail permits from postage meter readings. Performs other duties as described under SUPERVISOR (clerical) Master Title. May interview and recommend hiring of mailroom employees. May train new employees. May maintain personnel records [PERSONNEL CLERK (clerical)].
GOE: 07.05.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

209.137-014 METER READER, CHIEF (utilities; waterworks)
Supervises and coordinates activities of METER READERS (utilities; waterworks): Verifies rates and addresses of new service accounts. Reviews reports and notifies authorities of attempted diversions, defective meters, and other irregularities. Investigates customer complaints concerning METER READERS (utilities; waterworks). Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.05.02 STRENGTH: S GED: R4 M2 L3 SVP: 6 DLU: 77

209.137-018 SUPERVISOR, AGENCY APPOINTMENTS (insurance)
Supervises and coordinates activities of workers engaged in maintaining records of insurance company agents' appointments, licenses, certification, and sales contracts: Confers with superior, subordinates, and personnel in other departments to plan and coordinate work schedules. Evaluates work of AGENT-LICENSING CLERKS (insurance) and returns faulty work with instructions for correction or rework. Conducts periodic job-performance reviews and recommends appropriate personnel action. Gives orientation to and trains new workers, or assigns employee to experienced worker for training. Performs work of and assists subordinates to maintain production schedules. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.05.03 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

209.137-026 SUPERVISOR, MARKING ROOM (retail trade)
Supervises and coordinates activities of workers engaged in marking and attaching price tickets or tags to merchandise in marking room of retail establishment: Reviews invoices and purchase orders and makes rounds of work stations to determine type and amount of marking tickets required for each shipment of goods. Periodically examines test run of tickets printed by TICKETERS (any industry), to detect machine skips or other printing errors. Obtains completed batches of marking tickets, distributes tickets with purchase orders, and initiates correction form when discrepancies between merchandise and purchase order entries are noted by MARKERS (retail trade; wholesale tr.). Regularly participates in marking and tagging merchandise to assist workers and maintain production. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

209.362-010 CIRCULATION CLERK (print. & pub.) alternate titles: subscription clerk
Compiles records concerned with delivery or mail order distribution of newspapers or magazines to subscribers, carriers, or dealers and adjusts complaints: Examines delivery tickets and records number of newspapers or magazines delivered to each city carrier or dealer. Types changes and corrections in names and addresses of subscribers, carriers, and dealers on distribution lists. Writes or types receipts for mail order subscriptions and forwards them to customers. Examines subscription date file and sends form letters to solicit renewal of expiring subscriptions. Receives telephoned and written complaints from subscribers and notifies distributor. Sells back copies of publication as requested. When concerned with distribution of publications within city may be designated City-Distribution Clerk (print. & pub.).
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

209.362-014 CONTROL CLERK, AUDITING (insurance)
Maintains audit-control files, assigns insurance cases to field auditors, and compiles reports of audits accomplished: Assigns insurance cases to field auditors for investigation or settlement according to designated territory and type of audit, following established procedures. Maintains card control files to indicate location and status of audits. Reviews audit reports and compares reports with data in files to compile production reports, using calculator and typewriter.
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 77

209.362-018 CREDIT REFERENCE CLERK (financial; retail trade)
Telephones or writes to references listed on application form to investigate credit standing of applicant. Records information on previous employment, received from employers, using typewriter or computer. Reciprocates credit information with credit bureaus.
GOE: 07.05.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 86

209.362-022 IDENTIFICATION CLERK (government ser.)
Performs any combination of following duties to compile and transmit records, relay information, microfilm documents, and take and classify fingerprints in police agency: Retrieves and prints copies of police records and reports requested by public and police personnel, using computer and printer. Retrieves information on vehicles and persons requested by patrolling police officers, and provides information to officers over police radio communications system. Operates equipment to microfilm crime and accident reports. Files microfilm. Retrieves microfilmed information upon request of police officials or public, and operates equipment to copy requested information. Tends facsimile machine to transmit and receive photographs, fingerprints, and accompanying information. Fingerprints applicants for licenses and assists in preparation of applications. Classifies fingerprints and matches fingerprints with prints previously filed as evidence in unsolved crimes [FINGERPRINT CLASSIFIER (government ser.) 375.387-010]. Compiles and submits periodic reports pertaining to police department activities.
GOE: 07.05.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 78

209.362-026 PERSONNEL CLERK (clerical) alternate titles: human resources clerk; personnel records clerk
Compiles and maintains personnel records: Records employee information, such as personal data; compensation, benefits, and tax data; attendance; performance reviews or evaluations; and termination date and reason. Processes employment applications and assists in other employment activities. Updates employee files to document personnel actions and to provide information for payroll and other uses. Examines employee files to answer inquiries and provides information to authorized persons. Compiles data from personnel records and prepares reports using typewriter or computer. May administer and score aptitude, personality, and interest tests. May explain bonding procedure required by company, and assist in completion of bonding application. May compute wages and record data for use in payroll processing [PAYROLL CLERK (clerical) 215.382-014]. May compile and maintain records for use in employee benefits administration and be designated Benefits Clerk (clerical) I. May prepare and file reports of accidents and injuries at establishment and be designated Accident-Report Clerk (clerical).
GOE: 07.05.03 STRENGTH: S GED: R4 M2 L4 SVP: 4 DLU: 88

209.362-030 CONGRESSIONAL-DISTRICT AIDE (government ser.)
Provides information and assistance to public and performs variety of clerical tasks in office of congressional legislator: Answers requests for information and assistance from constituents and other members of public, by phone or in person, using knowledge of governmental agencies and programs and source materials, such as agency listings and directories. Transcribes reports and types letters, using electric typewriter. Operates telecopier to receive and send messages, reports, and other documents. Opens and sorts mail according to addressee or type of assistance or information requested. Maintains record of telephone calls. Files correspondence, reports, and documents. Occasionally composes correspondence in response to written requests. Occasionally contacts other governmental or private agencies to act as liaison on behalf of constituents.
GOE: 07.04.04 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 86

209.362-034 CORRESPONDENCE CLERK (clerical)
Composes letters in reply to correspondence concerning such items as requests for merchandise, damage claims, credit information, delinquent accounts, incorrect billing, unsatisfactory service, or to request information: Reads incoming correspondence and gathers data to formulate reply. Operates typewriter to prepare correspondence or to complete form letters, or dictates reply. May route correspondence to other departments for reply. May keep files of correspondence sent, received, or requiring further action. May process orders, prepare order forms, and check progress of orders [ORDER CLERK (clerical) 249.362-026]. May be designated according to type of correspondence handled as Claim Clerk (clerical); Credit-Correspondence Clerk (clerical); Fan-Mail Clerk (amuse. & rec.); Sales-Correspondence Clerk (clerical).
GOE: 07.04.02 STRENGTH: S GED: R3 M2 L2 SVP: 6 DLU: 78

209.367-010 AGENT-LICENSING CLERK (insurance) alternate titles: agents'-records clerk
Processes new and prospective agents' licensing, certification, or bonding applications and forms to ensure conformance with regulations of State Insurance Commissions and bonding companies: Prepares or reviews licensing applications and other forms for completeness and accuracy, in accordance with insurance commission or bonding company requirements. Mails applications, documents, and fees to authorities and arranges appointments for examinations. Notifies company officials of applicants' acceptance or rejection. Maintains files of correspondence, records, and reports. May compile, type, and mail to field offices changes to approved lists of medical examiners.
GOE: 07.05.03 STRENGTH: S GED: R4 M1 L4 SVP: 5 DLU: 77

209.367-014 BRAILLE PROOFREADER (nonprofit org.; print. & pub.)
Verifies proof copy of braille transcription against original script, such as pamphlet, book, or newspaper, to detect grammatical, typographical, or

compositional errors and marks proof for correction: Reads original script to compare it with proof copy (if sighted); or listens to reading or recording of original and slides fingers over braille characters to feel discrepancies in proof (if blind). Consults reference books or secures aid of reader to check references to rules of grammar and composition. Marks proof with braille stylus or pencil to correct errors, using standard printers' marks. May direct workers in use of braille slates (printing devices). May select material for transcription.
GOE: 07.05.02 STRENGTH: S GED: R4 M1 L4 SVP: 5 DLU: 77

209.367-018 CORRESPONDENCE-REVIEW CLERK (clerical)
Reads and routes incoming correspondence to individual or department concerned: Reviews correspondence, determines appropriate routing, and requisitions records needed to process correspondence. Types acknowledgement letter to person sending correspondence. Reviews requested records for completeness and accuracy and attaches records to correspondence for reply by other workers. May maintain files and control records to show status of action in processing correspondence. May compile data from records to prepare periodic reports. May investigate discrepancies in reports and records and confer with personnel in affected departments to ensure accuracy and compliance with procedures.
GOE: 07.05.04 STRENGTH: S GED: R3 M1 L3 SVP: 5 DLU: 77

209.367-026 FINGERPRINT CLERK I (government ser.)
Transfers fingerprints of persons onto cards for purposes of identification: Directs individual to extend fingers and presses fingers on ink pad or glass plate and rolls them in specified spaces on card. Writes or types identifying information, such as name, address, and occupation on card. May administer oath of allegiance and perform other clerical duties.
GOE: 07.04.03 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

209.367-034 LOST-CHARGE-CARD CLERK (clerical)
Records data concerning lost or stolen charge cards: Receives by telephone, letter, or in person, and records information concerning loss, theft, or destruction of charge cards. Records information in customer-account record to avoid further billing of customer. Compiles reports to notify other personnel of possible need for further investigation and action, such as issuance of lost or stolen-card bulletin to subscribing merchants, to prevent fraudulent use of lost or stolen charge cards by others, or to issue new charge card to customer. May issue reward checks to merchants or other people who turn in lost or stolen charge cards. May send form letter to customers in reply to inquiries about lost, stolen, or replacement charge cards.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

209.367-038 NEWS ASSISTANT (radio-tv broad.) alternate titles: desk assistant
Compiles, dispenses, and files newsstories and related copy to assist editorial personnel in broadcasting newsroom: Telephones government agencies and sports facilities and monitors other stations to obtain weather, traffic, and sports information. Telephones people involved in news events to obtain further information or to arrange for on-air or background interviews by news broadcasting personnel. Files and retrieves news scripts, printouts, and recording tapes. May make written copies of newsstories called in from remote locations. May record, edit, and play back tapes of newsstories to assist COLUMNIST/COMMENTATOR (print. & pub.; radio-tv broad.), using recording and splicing machines and equipment.
GOE: 07.05.03 STRENGTH: L GED: R4 M2 L4 SVP: 3 DLU: 77

209.367-042 RECONSIGNMENT CLERK (clerical) alternate titles: disposition clerk; diversion clerk
Reroutes freight shipments to new destinations following request from shipper: Receives request from shipper for reconsignment or change in destination of freight shipment. Searches for original bill of lading, waybill, and freight bills to ascertain original route or destination. Telephones station at next scheduled stop on original route and issues instructions to reroute freight shipment. Sends telegram to confirm instructions issued over telephone. Prepares new bill of lading to record shipper's request for new destination, reconsignment, and route selected. May prepare waybills.
GOE: 07.05.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

209.367-046 TITLE SEARCHER (real estate) alternate titles: abstractor
Searches public and private records and indices to compile list of legal instruments pertaining to property titles, such as mortgages, deeds, and assessments, for insurance, real estate, or tax purposes: Reads search request to ascertain type of title evidence required, and to obtain legal description of property and names of involved parties. Compares legal description of property with legal description contained in records and indices, to verify such factors as deed of ownership, tax code and parcel number, and description of property's boundaries. Requisitions maps or drawings delineating property from company title plant, county surveyor, or assessor's office. Confers with realtors, lending institution personnel, buyers, sellers, contractors, surveyors, and courthouse personnel to obtain additional information. Compiles list of transactions pertaining to property, using legal description or name of owner to search lot books, geographic and general indices, or assessor's rolls. Examines title to determine if here are any restrictions which would limit use of property, prepares report listing restrictions, and indicates action needed to remove restrictions to clear itle. Compiles information and documents required for title binder. Prepares itle commitment and final policy of title insurance based on information compiled from title search. May specialize in searching tax records and be designated Tax Searcher (real estate). May use computerized system to retrieve additional documentation needed to complete real estate transaction. May retrieve and examine closing files to determine accuracy of information and to ensure that information included is recorded and executed according to regulations governing real estate industry. May prepare closing statement, utilizing knowledge of and expertise in real estate procedures.
GOE: 07.05.02 STRENGTH: L GED: R3 M1 L3 SVP: 5 DLU: 89

209.367-050 TRIP FOLLOWER (air trans.) alternate titles: flight follower
Posts positions of various aircraft flying within boundaries of dispatch area, on flight-following board: Reads messages received over telegraphic typewriter and posts data pertaining to position of airplanes on flight-following board. Notifies DISPATCHER (air trans.) or FLIGHT-INFORMATION EXPEDITER (air trans.) of messages received regarding departure times, delays, mechanical difficulties, or unusual weather conditions.
GOE: 07.04.05 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

209.367-054 YARD CLERK (r.r. trans.) alternate titles: check clerk
Prepares switching orders for railroad yard switching crew: Types or writes switching orders to inform switching crew of railroad yard, location, disposition, and number of railroad cars to be switched for loading, unloading, makeup, and breakup of trains, based on information received from YARD MANAGER (r.r. trans.) and other personnel or records. Keeps record of and reports movement and disposition of railroad cars for YARD MANAGER (r.r. trans.). May count and record number of cars remaining in yard each day. May telephone various personnel to verify location of railroad cars.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

209.382-010 CONTINUITY CLERK (motion picture)
Types descriptive record of motion picture scenes, including dialog, and such details as wardrobe, hairdress, and on-scene entrances and exits of ACTORS (amuse. & rec.); ACTRESS (amuse. & rec.) to aid editorial personnel in editing and assembling complete film: Mounts film on spindle of film viewer and starts equipment. Observes film on screen to determine action being depicted and pertinent details. Types brief narrative description and identifying information for each scene. Keeps records of completed work.
GOE: 07.05.03 STRENGTH: S GED: R3 M1 L3 SVP: 5 DLU: 77

209.382-014 SPECIAL-CERTIFICATE DICTATOR (insurance) alternate titles: settlement technician
Drafts endorsement to basic life insurance agreement, consistent with company and legal requirements, to denote method of payment to beneficiary: Reviews insured's request and examines basic policy to determine modifications required in basic agreement. Types or dictates text of modifying agreement to be appended to basic policy.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 6 DLU: 77

209.382-022 TRAFFIC CLERK (radio-tv broad.) alternate titles: traffic manager
Compiles log (broadcast schedule) of radio, television, or cable television commercial and public-service spot announcements, using computer: Reviews on-air time sales orders and public-service announcements to verify completeness of data required for log, such as sponsor identity, date, time, and duration of announcement, and whether live or recorded announcements. Enters information, such as sponsor identity, date, maximum time and frequency of commercials, and established network or local news announcement times, into computer to generate log. Contacts station staff for missing information. Reviews sponsors' requests for specific dates and times of announcements, and recommends alternate dates and times, or keys information into computer to revise log to avoid conflicts. Enters information into computer to compose daily log, and prints and distributes log to operations personnel and on-air talent. Reviews daily log after use for authorized changes made during broadcast date. May review content of commercial or public-service announcements for objectionable material. May operate viewing and/or audio equipment to ascertain content and length of commercial or public-service announcements. May perform additional clerical duties, such as billing, typing correspondence, reception, and filing sales orders, commercial and public-service announcement tapes, and daily logs.
GOE: 07.05.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 89

209.387-014 COMPILER (clerical)
Compiles directories, survey findings, opinion polls, and census reports from data obtained from surveys or census: Compiles names, addresses, vital statistics, and other facts or opinions from business subscribers or persons in communities or cities. Verifies information for completeness and accuracy. Records and arranges information in specified order or groupings, such as by name, location, sex, occupation, or affiliation. May use typewriter or other recording device to duplicate information for filing or distribution. May prepare graphs or charts to show survey results. May be designated according to type of information compiled as Directory Compiler (clerical); Survey Compiler (clerical). May compile lists of prospective customers and be designated Mailing-List Compiler (clerical).
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

209.387-018 CONTACT CLERK (utilities)
Sorts and lists gas- and electric-power service-connection orders for distribution to various service centers and compiles data from completed orders for reports: Sorts orders into groups for delivery to service centers, locating ad-

dress of customer on zoned map to determine appropriate center. Compiles list of each type of order (dispatch list) for use as control record. Reviews completed orders for compliance with reporting procedures and compiles data for various reports. Reviews incompleted orders and forwards them for processing.
GOE: 07.05.04 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

209.387-022 DATA-EXAMINATION CLERK (clerical)
Reviews computer input and output documents to ensure accuracy, completeness, and adherence to establishment standards: Reviews documents, such as surveys, to ensure completeness and appropriateness prior to data entry. Reads notes and instructions written on source documents and compares information with printouts to detect errors and ensure completeness and conformity with establishment policies and procedures. Notifies supervisor when errors and shortage of output are detected, and corrects errors or refers work to other workers for correction. Compares corrected input and output data with source documents, worksheets, and data displayed on screen of computer terminal to verify corrections. May review only computer input or output. May operate machines to separate and remove carbon paper from computer generated forms. May retype mutilated forms, using typewriter. May sort printouts for distribution.
GOE: 07.05.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 87

209.387-026 LIBRARY CLERK, TALKING BOOKS (library)
Selects talking books for mailing to blind library patrons: Compares borrower's written request with list or chart of available titles. Selects books or materials, such as large type or braille volumes, tape cassettes, and open reel tape talking books, following borrower's request, or selects substitute titles, following such criteria as age, education, interest, and sex of borrower. Obtains books or materials from shelves. Types address label to prepare books or materials for mailing. May type records, such as material or issue cards. May receive and inspect talking books returned to library [BRAILLE-AND-TALKING BOOKS CLERK (library)].
GOE: 05.09.01 STRENGTH: L GED: R3 M1 L3 SVP: 3 DLU: 77

209.387-030 PROOFREADER (print. & pub.)
Reads typescript (original copy) or proof of type setup to detect and mark for correction any grammatical, typographical, or compositional errors, by either of following methods: (1) Places proof and copy side by side on reading board. Reads proof against copy, marking by standardized code, errors that appear in proof. Returns marked proof for correction and later checks corrected proof against copy. (2) Reads and corrects proof while COPY HOLDER (print. & pub.) reads aloud from original copy or reads proof aloud to COPY HOLDER (print. & pub.) who calls out discrepancies between proof and copy. May measure dimensions, spacing, and positioning of page elements (copy and illustrations) to verify conformance to specifications, using printer's ruler.
GOE: 07.05.02 STRENGTH: L GED: R4 M1 L4 SVP: 5 DLU: 77

209.387-034 SUGGESTION CLERK (clerical)
Compiles and records suggestions submitted to suggestion committee: Reads suggestions submitted and records suggestions on control cards. Writes memorandum to acknowledge receipt of suggestion. Requisitions amount of cash award recommended for accepted suggestions. Schedules distribution of awards to winners, or forwards checks and award certificates to appropriate department heads for presentation to winners. Writes or types letters to originators of rejected suggestions, explaining reasons for nonacceptance. Maintains record of suggestions received. May review suggestions for clarity and legibility before presenting copies to review committee.
GOE: 07.05.03 STRENGTH: S GED: R3 M1 L3 SVP: 4 DLU: 77

209.562-010 CLERK, GENERAL (clerical) alternate titles: office clerk, routine
Performs any combination of following and similar clerical duties requiring limited knowledge of systems or procedures: Writes, types, or enters information into computer, using keyboard, to prepare correspondence, bills, statements, receipts, checks, or other documents, copying information from one record to another. Proofreads records or forms. Counts, weighs, or measures material. Sorts and files records. Receives money from customers and deposits money in bank. Addresses envelopes or packages by hand or with typewriter or addressograph machine. Stuffs envelopes by hand or with envelope stuffing machine. Answers telephone, conveys messages, and runs errands. Stamps, sorts, and distributes mail. Stamps or numbers forms by hand or machine. Photocopies documents, using photocopier.
GOE: 07.07.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 89

209.567-010 METER READER (utilities; waterworks)
Reads electric, gas, water, or steam consumption meters and records volume used by residential and commercial consumers: Walks or drives truck over established route and takes readings of meter dials. Inspects meters and connections for defects, damage, and unauthorized connections. Indicates irregularities on forms for necessary action by servicing department. Verifies readings to locate abnormal consumption and records reasons for fluctuations. Turns service off for nonpayment of charges in vacant premises, or on for new occupants. Collects bills in arrears. Returns route book to business office for billing purposes. May be designated according to type of meter read as Electric-Meter Reader (utilities); Gas-Meter Reader (utilities); Steam-Meter Reader (utilities); Water-Meter Reader (waterworks).
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 81

209.567-014 ORDER CLERK, FOOD AND BEVERAGE (hotel & rest.)
Takes food and beverage orders over telephone or intercom system and records order on ticket: Records order and time received on ticket to ensure prompt service, using time-stamping device. Suggests menu items, and substitutions for items not available, and answers questions regarding food or service. Distributes order tickets or calls out order to kitchen employees. May collect charge vouchers and cash for service and keep record of transactions. May be designated according to type of order handled as Telephone-Order Clerk, Drive-In (hotel & rest.); Telephone-Order Clerk, Room Service (hotel & rest.).
GOE: 07.04.02 STRENGTH: S GED: R3 M1 L2 SVP: 2 DLU: 77

209.582-010 MUSIC COPYIST (print. & pub.) alternate titles: music typographer
Copies musical scores onto stencils or manuscript paper for reproduction: Writes or types, using typewriter equipped with musical-symbol keyboard, musical notations indicating instrumental parts and choral arrangement. Draws or types lines to block out spacing of words and music. Types stencils and other materials concerned with reproduction of musical scores.
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L2 SVP: 5 DLU: 77

209.584-010 BRAILLE TRANSCRIBER, HAND (education; nonprofit organ.; print. & pub.) alternate titles: braille coder
Transcribes reading matter into braille for use by the blind, using hand stylus: Reads copy and manipulates hand stylus to emboss special paper with various combinations of dots that characterize braille alphabet, using braille code form.
GOE: 07.05.03 STRENGTH: S GED: R3 M1 L3 SVP: 4 DLU: 77

209.587-010 ADDRESSER (clerical) alternate titles: addressing clerk; envelope addresser
Addresses by hand or typewriter, envelopes, cards, advertising literature, packages, and similar items for mailing. May sort mail.
GOE: 07.07.02 STRENGTH: S GED: R2 M1 L2 SVP: 2 DLU: 77

209.587-014 CREDIT-CARD CLERK (retail trade)
Issues credit cards to customers for use as identification when purchasing articles to be charged to their account. Assigns and records card identification number on customer's account. Keeps records of cards reported lost and issues replacement cards.
GOE: 07.05.03 STRENGTH: S GED: R3 M1 L3 SVP: 3 DLU: 77

209.587-018 DIRECT-MAIL CLERK (clerical)
Mails letters, merchandise samples, and promotional literature to prospective customers. Receives requests for samples and prepares required shipping slips. Maintains files and records of customer transactions.
GOE: 07.07.02 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

209.587-022 HISTORY-CARD CLERK (utilities) alternate titles: meter-changes records clerk; meter-record clerk
Copies information such as name and address of customer, meter size and type, servicing and inspection dates, and results of installation or disconnection to maintain records of electric, gas, or steam meters. Supplies meter repair and maintenance workers with information from files as requested. May record date of receipt and completion of meter service orders to keep control register of work orders. May match permits with work orders and verify completeness of orders to show required measurements and sketch of meter location. May assist with periodic physical inventory of meters in meter shop. May make periodic reports of meters set, removed, or changed.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

209.587-030 MAP CLERK (insurance)
Records insurance information, such as policy number, amount and type of coverage, and expiration date, on street maps showing locations of buildings on which insurance company has written insurance. Compares insurance coverage with adjoining buildings to check justification of coverage.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

209.587-034 MARKER (retail trade; wholesale tr.) alternate titles: marking clerk; merchandise marker; price marker; ticket maker
Marks and attaches price tickets to articles of merchandise to record price and identifying information: Marks selling price by hand on boxes containing merchandise, or on price tickets. Ties, glues, sews, or staples price ticket to each article. Presses lever or plunger of mechanism that pins, pastes, ties, or staples ticket to article. May record number and types of articles marked and pack them in boxes. May compare printed price tickets with entries on purchase order to verify accuracy and notify supervisor of discrepancies. May print information on tickets, using ticket-printing machine [TICKETER (any industry)]; [TICKET PRINTER AND TAGGER (garment)].
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

209.587-042 RETURN-TO-FACTORY CLERK (clerical) alternate titles: returns clerk
Records information pertaining to merchandise to be returned to manufacturer because of defects, wrong amount, or type: Examines and compares merchandise with original requisition to record information, such as quantity, type of defects, and date on invoice or other forms. Prepares invoices and other forms for all returned goods. May type letters or information on records to explain reason for returned goods. May compile and file list of merchandise handled.
GOE: 07.05.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

209.587-046 SAMPLE CLERK, PAPER (paper & pulp; paper goods) alternate titles: laboratory assistant
Prepares samples of paper and paper products for filing and mailing, performing any combination of following tasks: Collects samples of paper from

paper machines, coating machines, supercalenders and cutting machines. Cuts samples to specified dimensions, using paper cutter. Marks samples with identifying information, such as customer order number, batch number, and grade and color of paper, or pastes labels on samples. Files samples for use in tracing technical defects or to facilitate processing of repeat orders, mails samples to customers, or distributes them to plant officials for examination. May compare samples with standard or customer's sample to ascertain that paper meets specifications of grade and color. May send samples to laboratory for testing and compare test reports with specifications. May address packages of samples to be mailed to customers, by hand or using typewriter.
GOE: 06.04.26 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

209.587-050 WRONG-ADDRESS CLERK (retail trade)
Verifies addresses and corrects illegible or misaddressed shipping tags or labels, using credit files or directory information: Searches company credit files and directories, such as telephone, city, and postal directories, to find correct name and address. Marks revision on tags and labels, using marking pencil. Records adjusted information on delivery records.
GOE: 07.07.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

209.667-010 COPY HOLDER (print. & pub.)
Reads copy to PROOFREADER (print. & pub.) I to correct proofsheets of printed matter: Reads original copy aloud, calling out punctuation marks and spelling unusual words and proper names. Follows original copy word for word as PROOFREADER (print. & pub.) reads proofsheet aloud. Calls attention to discrepancies between copy and proof.
GOE: 07.05.02 STRENGTH: S GED: R4 M1 L4 SVP: 4 DLU: 77

209.667-014 ORDER CALLER (clerical) alternate titles: caller; call-out clerk; order-desk caller
Reads items listed on order sheets to LABORER, STORES (any industry) who gathers and assembles items or to BILLING TYPIST (clerical) who prepares bills for items. Indicates on order sheets items located and items that are not available. May read items to CHECKER (clerical) I who examines articles prior to shipping. May be designated by kind of data called out to other worker as Weight Caller (clerical); Yardage Caller (textile).
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

209.667-018 CODE AND TEST CLERK (financial)
Verifies and assigns code numbers on telecommunications messages used in banking transactions: Reads code (test) number on incoming messages and compares code number to previously agreed-upon number to verify authenticity of message. Assigns specified code number to outgoing messages, using computer or code sheets. May translate decoded foreign language messages into English.
GOE: 11.08.04 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 89

209.687-010 CHECKER II (clerical) alternate titles: check clerk; data clerk; proofreader; report checker
Performs routine checking duties to ensure accuracy of recorded data: Compares information or figures on one record against same data on other records. Corrects or records omissions, errors, or inconsistencies found. Is not characteristically engaged in making computations [AUDIT CLERK (clerical); CALCULATING-MACHINE OPERATOR (clerical)] but does use arithmetic. Does not check incoming or outgoing shipments, or record or keep tallies [RECEIVING CHECKER (clerical); SHIPPING CHECKER (clerical)]. May be designated according to type of clerical work checked as Billing Checker (clerical); Entry Examiner (clerical); Installment-Account Checker (clerical). May be designated: Asset-Card Clerk (clerical); Coupon-Manifest Clerk (clerical); Outlaw-Loan-Record Clerk (clerical); Price Checker (clerical); Printed-Forms Proofreader (clerical); Typing Checker (clerical).
GOE: 07.05.02 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

209.687-014 MAIL HANDLER (government ser.) alternate titles: distribution clerk
Sorts and processes mail in post office: Sorts incoming or outgoing mail into mail rack pigeonholes or into mail sacks according to destination. May feed letters into electric canceling machine or hand-stamp mail with rubber stamp to cancel postage. May serve at public window or counter. May transport mail within post office [MATERIAL HANDLER (any industry)]. May sort mail in mobile post office and be designated Distribution Clerk, Railway Or Highway Post Office (government ser.). May sort mail which other workers have been unable to sort and be designated Speical-Distribution Clerk (government ser.).
GOE: 07.05.04 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

209.687-018 REVIEWER (insurance) alternate titles: final-application reviewer; new-business clerk; sales-review clerk
Reviews insurance applications to ensure that all questions have been answered. Corresponds with sales personnel to inform them of status of application being processed, and to encourage prompt delivery of policies to policyholders. May collect initial premiums and issue receipts. May compile periodic reports on new business for management.
GOE: 07.05.02 STRENGTH: S GED: R3 M1 L3 SVP: 4 DLU: 77

209.687-022 SORTER (clerical)
Sorts data, such as forms, correspondence, checks, receipts, bills, and sales tickets, into specified sequence or grouping, such as by address, code, quantity, and class, for such purposes as filing, mailing, copying, or preparing records. May be designated according to work performed as Bill Sorter (clerical); Sales-Slip Sorter (clerical).
GOE: 07.07.02 STRENGTH: S GED: R2 M1 L2 SVP: 3 DLU: 77

209.687-026 MAIL CLERK (clerical) alternate titles: mailroom clerk; mail sorter; postal clerk
Sorts incoming mail for distribution and dispatches outgoing mail: Opens envelopes by hand or machine. Stamps date and time of receipt on incoming mail. Sorts mail according to destination and type, such as returned letters, adjustments, bills, orders, and payments. Readdresses undeliverable mail bearing incomplete or incorrect address. Examines outgoing mail for appearance and seals envelopes by hand or machine. Stamps outgoing mail by hand or with postage meter. May fold letters or circulars and insert in envelopes [FOLDING-MACHINE OPERATOR (clerical) 208.685-014]. May distribute and collect mail. May weigh mail to determine that postage is correct. May keep record of registered mail. May address mail, using addressing machine [ADDRESSING-MACHINE OPERATOR (clerical) 208.582-010]. May be designated according to type of mail handled as Mail Clerk, Bills (clerical).
GOE: 07.05.04 STRENGTH: L GED: R3 M1 L2 SVP: 2 DLU: 87

21 COMPUTING AND ACCOUNT-RECORDING OCCUPATIONS

This division includes occupations concerned with sytematizing information about transactions and activities into accounts and quantitative records, and paying and receiving money. It includes such activities as keeping and verifying records of business and financial transactions; receiving and disbursing money in banks and other establishments; operating data processing and peripheral equipment; computing and verifying amounts due for goods and services; preparing payrolls, timekeeping records, and duty rosters; combining data and performing computations to create statistical records; and computing costs of production in relation to other factors to determine profit and loss. Activities concerned with computing amounts of materials, equipment, and labor to determine production costs; and activities concerned with coordinating, scheduling, or monitoring production processes are found in Division 22.

210 BOOKKEEPERS AND RELATED OCCUPATIONS

This group includes occupations which require knowledge of bookkeeping principles and which are concerned with classifying, recording, and summarizing numerical data and with making computations to compile and keep financial records. Included in this group are occupations involving use of computers to maintain aggregated financial records, such as ledgers and general ledgers, and to compile financial reports. Occupations concerned primarily with making computations to prepare or verify documents, such as bills and statements, are found in Group 214. Occupations requiring limited or no knowledge of bookkeeping principles and concerned with performing computations to systematize information on transactions and activities into accounts and other numerical records are found in Group 216.

210.132-010 SUPERVISOR, AUDIT CLERKS (clerical)
Supervises and coordinates activities of workers engaged in examining bookkeeping and accounting entries of other workers or computer-rejected items, computing to reconcile errors, and recording corrections. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.01 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

210.362-010 DISTRIBUTION-ACCOUNTING CLERK (utilities)
Audits time and material charges on work orders for construction, maintenance, and operation of electric-power distribution lines: Reviews construction sketches and bills of materials at time work order is issued to ensure accurate listings of material quantities and assignment of accounting classifications. Audits chargeouts and return of materials from storeroom and time and material reports from construction crew to ensure accurate accounting of materials issued, used, or returned to storeroom. Summarizes charges and returns upon completion of job, using adding machine and calculator, and compares with construction sketch and bill of materials to detect differences between actual and estimated charges. May maintain field construction files.
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L2 SVP: 5 DLU: 77

210.367-010 ACCOUNT-INFORMATION CLERK (utilities)
Keeps accounting records and compiles information requested by customer and others pertaining to customer accounts: Keeps records and prepares report of meters registering use of gas- or electric-power, showing results of investigations and amounts recovered or lost. Prepares lists and enters charges and payments to customers' accounts for losses, additional deposits, special and irregular charges. Keeps records of overpayments on customer accounts. Applies overpayments to charges on customers' account or prepares voucher for refund. Investigates incorrect billings due to charges or credits on customers' accounts and prepares written instructions for correction. Reviews accounts not billed and prepares bill from available information. Enters information in meter books which was received too late for billing, such as meter test reports and missed meter readings. Prepares lists of special billing instructions, incorporating charges shown on customers' account. Processes final bills that exceed amount of deposit to enter amount of net bill. Prepares and mails duplicate bills as requested. Interviews customers and others in person or by telephone to answer

inquiries and complaints pertaining to bills, customer deposits, and accounts. May specialize in handling inquiries received by mail, compiling information from customer accounting records for replies dictated by others.
GOE: 07.02.03 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

210.367-014 FOREIGN-EXCHANGE-POSITION CLERK (financial)
Maintains current record of bank's funds on deposit (position) in foreign banks: Records bank's balances on deposit in foreign banks, outstanding (future) purchase and sales contracts, and undelivered items, to maintain record, using computer. Lists totals in holdover register and posts net balances to daily position reports to determine new position. Reviews records to determine when balances need replenishing. Computes net balances and informs trading personnel. May compare current and previous balance sheets to eliminate double-posting to transactions and verification of limits. May assist trading personnel in preparing monthly revaluation of foreign currency accounts. May answer inquiries regarding foreign exchange trading regulations. May quote established conversion rates for bank branch staff and customers.
GOE: 07.02.01 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 89

210.382-010 AUDIT CLERK (clerical)
Verifies accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers: Examines expense accounts, commissions paid to employees, loans made on insurance policies, interest and account payments, cash receipts, sales tickets, bank records, inventory and stock-record sheets, and similar items to verify accuracy of recorded data. Corrects errors or lists discrepancies for adjustment. Computes percentages and totals, using adding or calculating machines, and compares results with recorded entries. May be designated according to type of records audited as Cash-Sales-Audit Clerk (clerical); Charge-Accounts-Audit Clerk (clerical); C.O.D. Audit Clerk (clerical); Commission Auditor (insurance); Expense Clerk (clerical); Federal-Housing-Administration-Loan Auditor (insurance). May be designated: Inventory-Audit Clerk (clerical); Journal-Entry-Audit Clerk (clerical); Medical-Records Auditor (medical ser.); Remittance-On-Farm-Rental-And-Soil-Conservation Auditor (insurance).
GOE: 07.02.01 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 80

210.382-014 BOOKKEEPER (clerical)
Keeps records of financial transactions for establishment, using calculator and computer: Verifies, allocates, and posts details of business transactions to subsidiary accounts in journals or computer files from documents, such as sales slips, invoices, receipts, check stubs, and computer printouts. Summarizes details in separate ledgers or computer files and transfers data to general ledger, using calculator or computer. Reconciles and balances accounts. May compile reports to show statistics, such as cash receipts and expenditures, accounts payable and receivable, profit and loss, and other items pertinent to operation of business. May calculate employee wages from plant records or time cards and prepare checks for payment of wages. May prepare withholding, Social Security, and other tax reports. May compute, type, and mail monthly statements to customers. May be designated according to kind of records of financial transactions kept, such as Accounts-Receivable Bookkeeper (clerical), and Accounts-Payable Bookkeeper (clerical). May complete records to or through trial balance.
GOE: 07.02.01 STRENGTH: S GED: R4 M4 L3 SVP: 6 DLU: 87

210.382-030 CLASSIFICATION-CONTROL CLERK (clerical)
Classifies, for bookkeeping purposes, each item on reports, work orders, material requisitions, and invoices, noting after each item ledger account to which it is to be charged, or classifies items for statistical purposes according to predetermined system. May specialize in item classified and be designated Account-Classification Clerk (clerical); Invoice-Classification Clerk (clerical).
GOE: 07.02.01 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

210.382-038 CREDIT-CARD CLeRK (hotel & rest.)
Compiles and verifies credit-card data from vouchers and other records and computes charges and payments due to establishment to keep records of hotel credit-card transactions: Compares charges on vouchers with audit tape to detect errors and corrects faulty vouchers. Sorts and combines vouchers and other credit transaction records by individual card-issuing firm. Computes totals, discounts, net charges, and amounts due, using calculator and adding machine, and posts to account journals. Prepares invoices for payment by card-issuing firms.
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L2 SVP: 3 DLU: 77

210.382-042 FIXED-CAPITAL CLERK (utilities)
Keeps records of fixed-capital accounts: Posts completed gas or electric work orders to respective accounts in plant ledgers. Appraises retirement values of equipment, such as gas mains, regulators, meters, and transformers and posts retirements to fixed-capital record books. Balances fixed-capital record books with respective control accounts in general ledger. Prepares journal vouchers, makes trial balances, and compiles reports of money charged to fixed-capital accounts.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

210.382-046 GENERAL-LEDGER BOOKKEEPER (clerical)
Compiles and posts in general ledgers information or summaries concerning various business transactions that have been recorded in separate ledgers by other clerks, using calculating or adding machine.
GOE: 07.02.01 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 77

210.382-050 MORTGAGE-LOAN-COMPUTATION CLERK (insurance)
Compiles ledger accounts on mortgage loans, using calculating machine. Examines ledger card for balance owed by debtor. Computes interest, principal, and added charges, such as taxes or insurance. Enters results of calculations in ledger accounts.
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L2 SVP: 3 DLU: 77

210.382-054 NIGHT AUDITOR (hotel & rest.) alternate titles: night-clerk auditor
Verifies and balances entries and records of financial transactions reported by various hotel departments during day, using adding, bookkeeping, and calculating machines. May perform duties of HOTEL CLERK (hotel & rest.) 238.367-038 in smaller establishment.
GOE: 07.02.02 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 80

210.382-062 SECURITIES CLERK (clerical)
Compiles and maintains records of firm's securities transactions: Reviews statements of transactions such as purchases and sales of securities, compares items with records to verify accuracy, and enters details in journals. Computes amounts, such as cash balances, dividends, gain or loss, and other investment data to verify accuracy of records, using adding machine, and reconciles discrepancies. Distributes investment income to various accounts, according to budgeted percentages, to compile investment journals. Computes amounts to determine cash position of various accounts and prepares vouchers to transfer funds needed to meet payments due.
GOE: 07.02.03 STRENGTH: S GED: R4 M4 L3 SVP: 6 DLU: 77

211 CASHIERS AND TELLERS

This group includes occupations concerned with receiving and disbursing money and recording transactions. Most occupations involve use of calculators, cash registers, change makers, or computer terminals. Some machines, such as cash registers, may be connected to computers and use a scanner to record customer purchases. It includes occupations concerned with receiving and disbursing money in banks and other financial institutions.

211.132-010 TELLER, HEAD (financial)
Supervises and coordinates activities of workers engaged in receiving and paying out money and keeping records of transactions in banks and similar financial institutions: Assigns duties and work schedules to workers to ensure efficient functioning of department. Trains employees in customer service and banking procedures. Approves checks for payment. Adjusts customer complaints. Examines TELLERS' (financial) 211.362-018 reports of daily transactions for accuracy. Consolidates and balances daily transactions, using adding machine and computer. Ensures supply of money for financial institution's needs based on legal requirements and business demand. May allow customers access to safe deposit boxes, following specified procedures. May monitor and review financial institution's security procedures and control access to vault. May count and record currency and coin in vault. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.03.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 88

211.137-010 SUPERVISOR, CASHIERS (hotel & rest.; retail trade)
Supervises and coordinates activities of workers engaged in receiving cash or credit-card payment for merchandise or services and keeping records of funds received in retail establishments or places of public accommodation: Performs cashiering and other clerical duties to relieve subordinates during peak work periods. Searches records to assist subordinates in locating and reconciling posting errors on customers' invoices, such as hotel bills or sales tickets, or compares cash register totals with receipts in register to verify accuracy of transactions. Withdraws monies from bank and keeps custody of operating funds, or retains next day's operating funds from daily receipts. Allocates operating funds to cashiering stations. Totals and summarizes funds received, endorses checks, and prepares bank deposit slip. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.03.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

211.137-014 SUPERVISOR, FOOD CHECKERS AND CASHIERS (hotel & rest.)
Plans, supervises, and coordinates activities of FOOD-AND-BEVERAGE CHECKERS (hotel & rest.) and CASHIERS (clerical) II at multiple stations in large food-service establishment: Establishes food-checking and cashiering stations to support activities, such as dining rooms, bars, clubs, banquets, and social functions. Hires and trains workers. Observes food-checking, billing, and cashiering activities; counts cash; and reconciles charge sales and cash receipts with total sales to verify accuracy of transactions. Compiles reports, such as cash receipts, guest-bill charges, and sales for accounting and management purposes, or supervises clerical workers preparing reports.
GOE: 07.03.01 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 77

211.137-018 SUPERVISOR, MONEY-ROOM (amuse. & rec.)
Supervises and coordinates activities of money-room workers engaged in keeping account of money wagered on each race at racetrack: Keeps continuous balance sheet of cash transactions and verifies with cash on hand. Requisitions additional cash as needed. Determines workers needed each day and assigns their duties. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.02 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

211.137-022 SUPERVISOR, TELLERS (utilities)
Supervises and coordinates activities of TELLERS (utilities) in accepting payments for gas and electric-power bills from customers and keeps records of

oney received: Interprets company policies and work procedures. Calculates
onthly commissions for authorized collection agencies, such as neighborhood
ores, from daily summaries of cash receipts by agents. Dictates cor-
spondence or contacts agents by telephone to reconcile errors in their reports.
aces payments made to agents when customer does not receive credit for pay-
ent. Interviews customers to assist workers in resolving questions not covered
specified procedures. Prepares regular reports on operations of section.
aintains records of daily overage or shortage in cash receipts. Performs other
ties as described under SUPERVISOR (clerical) Master Title.
OE: 07.03.01 STRENGTH: S GED: R4 M4 L4 SVP: 8 DLU: 77

1.362-010 CASHIER I (clerical) alternate titles: cash-accounting clerk
Receives funds from customers and employees, disburses funds, and records
onetary transactions in business establishment or place of public accommoda-
n: Receives cash or checks or completes credit-card charge transactions.
unts money to verify amounts and issues receipts for funds received. Issues
ange and cashes checks. Compares totals on cash register with amount of
rency in register to verify balances. Endorses checks and lists and totals cash
l checks for bank deposit. Prepares bank deposit slips. Withdraws cash from
nk accounts and keeps custody of cash fund. Disburses cash and writes
uchers and checks in payment of company expenditures. Posts data and bal-
ces accounts. Compiles collection, disbursement, and bank-reconciliation re-
ts. Operates office machines, such as typewriter, computer terminal, and
ding, calculating, bookkeeping, and check-writing machines. May authorize
ious plant expenditures and purchases. May prepare payroll and paychecks.
y issue itemized statement to customer. May be designated according to spe-
lization as Agency Cashier (insurance); Cashier, Front Office (hotel & rest.).
en disbursing money in payment of wages, materials, taxes, plant mainte-
ce, and other company expenses, is designated Disbursement Clerk (cleri-
).
OE: 07.03.01 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 88

1.362-014 FOREIGN BANKNOTE TELLER-TRADER (financial)
Buys and sells foreign currencies and drafts and sells travelers' checks, ac-
ding to daily international exchange rates, working at counter in foreign ex-
nge office: Questions patrons to determine type of currency or draft desired
offered for sale. Quotes unit exchange rate, following daily international rate
et or computer display. Computes exchange value including fee for trans-
ion, using calculator, and counts out currency. Sells foreign and domestic
velers' checks. Prepares sales slips and records transactions in daily log.
es information to patrons about foreign currency regulations. Prepares daily
entory of currency, drafts, and travelers' checks. Computes amounts on
sheets and reconciles totals with inventory report.
OE: 08.01.03 STRENGTH: S GED: R4 M4 L4 SVP: 5 DLU: 78

.362-018 TELLER (financial) alternate titles: general teller
Receives and pays out money, and keeps records of money and negotiable
ruments involved in financial transactions: Receives checks and cash for de-
it, verifies amount, and examines checks for endorsements. Cashes checks
pays out money after verification of signatures and customer balances. En-
customers' transactions into computer to record transactions, and issues
nputer-generated receipts. Places holds on accounts for uncollected funds.
lers daily supply of cash, and counts incoming cash. Balances currency,
n, and checks in cash drawer at end of shift, using calculator, and compares
led amounts with data displayed on computer screen. Explains, promotes,
sells products or services, such as travelers checks, savings bonds, money
ers, and cashier's checks. May open new accounts. May remove deposits
n, and count and balance cash in, automated teller machines and night de-
itory. May accept utility bill and loan payments. May use typewriter, photo-
ier, and check protector to prepare checks and financial documents.
E: 07.03.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 88

.367-010 PAYMASTER OF PURSES (amuse. & rec.)
ays purses (winnings) to owners of winning horses and receives deposits
n owners for expenses at racetrack: Receives deposits from owners desiring
laim horses in claiming race and for racing expenses, such as entry and
r fees and stable expenses. Pays owners of winning horses amounts speci-
on official programs. Pays claiming price to sellers, pays racing expenses
owners, and debits accounts. Periodically balances owners' accounts. Noti-
owners when accounts are overdrawn or writes checks to close accounts.
npiles and records information concerning ownership of horses for submis-
to racing officials.
E: 07.03.01 STRENGTH: S GED: R4 M4 L3 SVP: 6 DLU: 77

.382-010 TELLER, VAULT (financial)
ills orders for currency and coins, and counts and records cash deposits in
lt of commercial bank: Counts currency, coins, and checks received for de-
t in vault from business or branch bank, by hand and using currency-count-
machine. Totals currency and checks, using computer or calculator, to ver-
amount on deposit slip or other form. Records deposit in customer account
ord. Removes specified amount of currency and coins from vault and places
in bag for shipment to business or branch bank. Records amount of cash
ped. Counts and records large denomination bills, mutilated currency, and
l stamps, by hand and using currency-counting machine, for shipment to
eral Reserve Bank. Balances transactions for day, using computer or cal-
tor, and records results.
E: 07.03.01 STRENGTH: M GED: R4 M3 L3 SVP: 4 DLU: 88

211.462-010 CASHIER II (clerical) alternate titles: cash clerk; cashier, general; cashier, office; ticket clerk

Receives cash from customers or employees in payment for goods or services and records amounts received: Recomputes or computes bill, itemized lists, and tickets showing amount due, using adding machine or cash register. Makes change, cashes checks, and issues receipts or tickets to customers. Records amounts received and prepares reports of transactions. Reads and records totals shown on cash register tape and verifies against cash on hand. May be required to know value and features of items for which money is received. May give cash refunds or issue credit memorandums to customers for returned merchandise. May operate ticket-dispensing machine. May operate cash register with peripheral electronic data processing equipment by passing individual price coded items across electronic scanner to record price, compile printed list, and display cost of customer purchase, tax, and rebates on monitor screen. May sell candy, cigarettes, gum, and gift certificates, and issue trading stamps. May be designated according to nature of establishment as Cafeteria Cashier (hotel & rest.); Cashier, Parking Lot (automotive ser.); Dining-Room Cashier (hotel & rest.); Service-Bar Cashier (hotel & rest.); Store Cashier (clerical); or according to type of account as Cashier, Credit (clerical); Cashier, Payments Received (clerical). May press numeric keys of computer corresponding to gasoline pump to reset meter on pump and to record amount of sale and be designated Cashier, Self-Service Gasoline (automotive ser.). May receive money, make change, and cash checks for sales personnel on same floor and be designated Floor Cashier (clerical). May make change for patrons at places of amusement other than gambling establishments and be designated Change-Booth Cashier (amuse. & rec.).
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 81

211.462-014 CASHIER-CHECKER (retail trade)

Operates cash register to itemize and total customer's purchases in grocery, department, or other retail store: Reviews price sheets to note price changes and sale items. Records prices and departments, subtotals taxable items, and totals purchases on cash register. Collects cash, check, or charge payment from customer and makes change for cash transactions. Stocks shelves and marks prices on items. Counts money in cash drawer at beginning and end of work shift. May record daily transaction amounts from cash register to balance cash drawer. May weigh items, bag merchandise, issue trading stamps, and redeem food stamps and promotional coupons. May cash checks. May use electronic scanner to record price. May be designated according to items checked as Grocery Checker (retail trade).
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 81

211.462-018 CASHIER-WRAPPER (retail trade)

Operates cash register to compute and record total sale and wraps merchandise for customers in department, variety, and specialty stores: Receives sales slip, money, and merchandise from salesperson or customer. Records amount of sale on cash register and makes change. Obtains credit authorization on charge purchases in excess of floor limit from designated official, using telephone or pneumatic tube carrier. Inspects merchandise prior to wrapping to see that it is in satisfactory condition and verifies sales slip with price tickets on merchandise. Places merchandise in bags or boxes and gives change and packages to selling personnel. Wraps packages for shipment and routes to delivery department. Balances cash received with cash sales daily. May gift wrap merchandise.
GOE: 09.04.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

211.462-022 CASHIER, GAMBLING (amuse. & rec.)

Accepts and pays off bets placed by patrons of cardrooms, bookmaking, or other gambling establishments: Sells color-coded gambling chips or tickets to patrons or to other workers for resale to patrons. Records transaction, using cash register. Accepts cash or checks for chips or approves patrons' credit and charges individual accounts for amount issued. Reconciles daily summaries of transactions to balance books. May accept patrons' credit applications and verify credit references to obtain check-cashing authorization. May accept bets only and be designated Bet Taker (amuse. & rec.).
GOE: 07.03.01 STRENGTH: S GED: R3 M3 L2 SVP: 4 DLU: 77

211.462-026 CHECK CASHIER (business ser.) alternate titles: cashier, check-cashing agency

Cashes checks, prepares money orders, receives payment for utilities bills, and collects and records fees charged for check-cashing service. May receive payment and issue receipts for such items as license plates.
GOE: 07.03.01 STRENGTH: S GED: R3 M3 L2 SVP: 3 DLU: 77

211.462-030 DRIVERS'-CASH CLERK (motor trans.)

Receives monies and drivers' route sheets, and issues receipts to truck drivers for cash collected on shipment. Records bills for which cash has been received on collection sheets. Verifies totals of cash on hand against bills, using calculating machine. May endorse checks and wrap currency and coins.
GOE: 07.02.02 STRENGTH: L GED: R3 M2 L1 SVP: 3 DLU: 77

211.462-034 TELLER (utilities) alternate titles: remittance clerk

Computes and collects payments from customers for utility services or appliances: Receives cash or check from customer or through mail. Totals items on bill, using adding machine. Records transaction on cash register and issues receipt and any change due customer. Balances totals received with totals on billing stubs. Explains charges on bill to customer and initiates action to adjust complaints. May collect customer's deposit for service connection. May specialize in handling delinquent bills or those presented for partial payment.

GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

211.462-038 TOLL COLLECTOR (government ser.)

Collects toll charged for use of bridges, highways, or tunnels by motor vehicles, or fare for vehicle and passengers on ferryboats: Collects money and gives customer change. Accepts toll and fare tickets previously purchased. At end of shift balances cash and records money and tickets received. May sell round-trip booklets. May be designated according to place of employment as Toll-Bridge Attendant (government ser.); or type of fare as Vehicle-Fare Collector (motor trans.; water trans.). May admit passengers through turnstile and be designated Turnstile Collector (water trans.).
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

211.467-010 CASHIER, COURTESY BOOTH (retail trade)

Cashes checks for customers and monitors checkout stations in self-service store: Cashes personal and payroll checks. Provides information to customers. Receives customer's complaints and resolves complaints when possible. Monitors checkout stations to reduce customer delay. Calls additional workers to stations when situation warrants. Issues cash to stations and removes excess cash. Audits cash register tapes. May compile reports, verify employee time records, and prepare payroll.
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

211.467-014 MONEY COUNTER (amuse. & rec.) alternate titles: money-room teller

Counts, sorts, and issues money to PARIMUTUEL-TICKET SELLERS (amuse. & rec.), and PARIMUTUEL-TICKET CASHIERS (amuse. & rec.) to conduct daily transactions at racetrack. Observes totaling board for official race results and issues money to cashiering stations to pay holders of winning tickets. Compares workers' reports of cash collected and paid out to verify accuracy of transactions.
GOE: 07.07.02 STRENGTH: L GED: R3 M3 L2 SVP: 3 DLU: 77

211.467-018 PARIMUTUEL-TICKET CASHIER (amuse. & rec.) alternate titles: mutuel cashier; parimutuel cashier

Cashes winning parimutuel tickets for patrons at race track: Posts official race results and value of winning tickets on worksheet to compute payouts. Compares ticket submitted by patron with sample to determine validity. Pays winnings to patron. Summons security personnel to apprehend persons attempting to cash fraudulent tickets, or directs patron to INFORMATION CLERK-CASHIER (amuse. & rec.) or to supervisory personnel to resolve questions of ticket validity. Records number of tickets cashed and amount paid out after each race. Requisitions additional cash from MONEY COUNTER (amuse. & rec.) as required. Keeps daily balance sheet of amount and number of transactions.
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

211.467-022 PARIMUTUEL-TICKET SELLER (amuse. & rec.) alternate titles: mutuel clerk; parimutuel clerk

Sells parimutuel tickets to patrons at racetrack: Reads entry sheets to ascertain entry number of specific horses in designated race and depresses corresponding numbered key of ticket-dispensing machine that automatically ejects ticket requested by patron. Accepts money and makes change. After start of race records totals of tickets sold and cash received and forwards to money room for counting and verification.
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

211.467-026 SHEET WRITER (amuse. & rec.)

Cashes winning tickets in bookmaking establishment: Records on sheets final odds on winning horses as odds are received at bookmaking establishment. Computes winnings due and pays bettors. Balances cash disbursed against total of winning tickets. Computes total monies received for tickets sold on each race.
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

211.467-030 TICKET SELLER (clerical) alternate titles: cashier, ticket selling

Sells tickets for travel on ferryboats, street railroads, buses, and for admission to places of entertainment, such as skating rinks, baseball parks, stadiums, and amusement parks: Depresses key on ticket-dispensing machine that automatically ejects number of tickets requested by patron or tears tickets from roll and hands ticket to patron. Accepts payment and makes change. Answers questions concerning fares, routes, schedules, and reservations, and gives information concerning coming attractions. Keeps daily balance sheet of cash received and tickets sold. May fill reservations for seats by telephone or mail. May sell tickets from box office and be designated Cashier, Box Office (amuse. & rec.). May collect fares from repeat riders at amusement park and be designated Second-Ride-Fare Collector (amuse. & rec.). May collect fares from railroad passengers at station and sell commuter tickets and be designated Station Agent (r.r. trans.) II.
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 80

211.467-034 CHANGE PERSON (amuse. & rec.)

Exchanges coins for customer's paper money in slot machine area of gambling establishment: Walks and carries money belt in assigned section to exchange size and value of coins desired by customers. Listens for jackpot alarm bell, issues payoffs, and obtains customer's signature on receipt when winnings exceed amount contained in machine.
GOE: 07.03.01 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 86

211.482-010 CASHIER, TUBE ROOM (retail trade)

Computes and records cash receipts, issues operating funds, receives money and makes change, via pneumatic tube, to assist cashiering personnel in department store: Issues bank (operating funds) to cashiering stations. Receives, via pneumatic tube, carriers containing money and sales slips from sales departments, and makes change, using cash drawer and change dispenser. Records individual payments received, using adding machine. Inserts change into carrier and routes, via tube, for return to specified department. Receives bank and cash receipts from departments and c.o.d. collections from delivery-truck drivers, tallies cash receipts, and verifies cash against accompanying reports. Sorts and counts currency, checks, refunds, and gift certificates. Stacks currency manually and sorts, counts, and wraps coins, using machine. Computes totals, using adding machine, and records on daily report. Corrects faulty entries on individual cash reports received. May perform tasks without use of pneumatic tube.
GOE: 07.02.02 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

211.482-014 FOOD CHECKER (hotel & rest.)

Scans loaded trays carried by patrons in hotel or restaurant cafeteria to compute bill: Operates machine similar to cash register to compute bill and presents check to patron for payment to CASHIER (clerical) II. May operate adding machine and present tape rather than check to customer for payment. May act as CASHIER (clerical) II.
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L1 SVP: 3 DLU: 77

211.482-018 FOOD-AND-BEVERAGE CHECKER (hotel & rest.)

Computes food or beverage service bills and verifies completeness of customer orders in hotel kitchen, dining room, restaurant, or service bar: Examines food on tray enroute from kitchen or beverages enroute from service bar and compares items with listing on customer order to verify completeness and accuracy of order. Operates machine similar to cash register to compute charges. May take telephone orders for room service [ORDER CLERK, FOOD AND BEVERAGE (hotel & rest.)].
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

213 COMPUTER AND PERIPHERAL EQUIPMENT OPERATORS

This group includes occupations concerned with managing, controlling, and monitoring operations of computers and peripheral equipment that record, store, retrieve, and print processed information. Activities involving the primary input of data into computer systems using machines equipped with typewriter-like keyboards are found in Group 203. Occupations concerned with computer scheduling are found in Group 221.

213.132-010 SUPERVISOR, COMPUTER OPERATIONS (clerical) alternate titles: chief console operator; supervisor, data processing

Supervises and coordinates activities of workers operating computers and peripheral equipment: Assigns staff and schedules work to facilitate production. Directs training or trains workers to operate computer and peripheral equipment. Confers with programmers and operates computer to test new and modified programs. Directs operation of computer to execute program, and observes operation to detect error or failure in progress of program. Reads monitor and enters commands to help computer operators identify and correct errors. Revises input data and program to continue operation of program, using computer terminal. Notifies programming and maintenance personnel if unable to locate and correct cause of processing error or failure. Revises operation schedule to adjust for delays, or notifies scheduling workers of need to adjust schedule. Prepares or reviews production, operating, and down time records and reports. Recommends changes in programs, routines, and quality control standards to improve computer operating efficiency. Consults with supervisor about problems, such as equipment performance, output quality, and maintenance schedule. Coordinates flow of work between shifts to ensure continuity. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.06.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 90

213.362-010 COMPUTER OPERATOR (clerical)

Operates computer and peripheral equipment to process business, scientific, engineering, or other data, according to operating instructions: Enters commands, using keyboard of computer terminal, and presses buttons and flips switches on computer and peripheral equipment, such as tape drive, printer, data communications equipment, and plotter, to integrate and operate equipment, following operating instructions and schedule. Loads peripheral equipment with selected materials, such as tapes and printer paper for operating runs, or oversees loading of peripheral equipment by peripheral equipment operators. Enters commands to clear computer system and start operation, using keyboard of computer terminal. Observes peripheral equipment and error messages displayed on monitor of terminal to detect faulty output or machine stoppage. Enters commands to correct error or stoppage and resume operations. Notifies supervisor of errors or equipment stoppage. Clears equipment at end of operating run and reviews schedule to determine next assignment. Records problems which occurred, such as down time, and actions taken. May answer telephone calls to assist computer users encountering problem. May assist workers in classifying, cataloging, and maintaining tapes [TAPE LIBRARIAN (clerical) 206.367-018].
GOE: 07.06.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 90

213.382-010 COMPUTER PERIPHERAL EQUIPMENT OPERATOR (clerical)

Operates computer peripheral equipment, such as printer, plotter, computer output microfiche machine, and document reader-sorter to transfer data to and from computer and to convert data from one format to another: Reads instructions and schedule, such as schedule of documents to be printed, or receives instructions from supervisor orally, to determine work for shift. Mounts reels and cartridges of magnetic tape in tape drives, loads paper in printer, loads checks or other documents in magnetic ink reader-sorter or optical character reader, sets guides, keys, and switches, enters commands into computer, using computer terminal, and performs other tasks, to start and operate peripheral machines. Observes machine operation and error lights on machines to detect malfunction. Observes materials printed for defects, such as creases and tears. Removes faulty materials and notifies supervisor of error or machine stoppage. Unloads and labels magnetic tape for delivery to other worker or tape library. May separate, sort, and distribute output. May clean and supply equipment operated with paper, ink, film, developing solution, and other materials.
GOE: 07.06.01 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 88

213.582-010 DIGITIZER OPERATOR (business ser.; petrol. & gas)

Operates encoding machine to trace coordinates on documents, such as maps or drawings, and to encode document points into computer: Reads work order to determine document points to be digitized (encoded). Positions document on digitizer (encoding machine) table. Guides digitizer cursor over document to trace coordinates, stops at specified points, and punches cursor key to digitize points into computer memory unit. Observes monitor screen periodically to verify completeness of encoding. Types command on keyboard to transfer encoded data from memory unit to magnetic tape. Keeps record of work orders, time, and tape production.
GOE: 07.06.01 STRENGTH: S GED: R3 M3 L2 SVP: 5 DLU: 86

214 BILLING AND RATE CLERKS

This group includes occupations concerned with making computations with or without machines for purposes of preparing or verifying bills, invoices, rates, tariffs, duties, and statements of amounts due for items purchased or services rendered. It includes counting or tallying to obtain data on which payments are based. Occupations concerned with preparing bills and invoices involving substantial use of typewriter are found in Group 203. Occupations concerned with using knowledge of bookkeeping principles and procedures to compute, classify, and record numerical data to keep sets of financial records are found in Group 210. Occupations concerned with preparing numerical records of time worked or units produced for payroll or timekeeping purposes are found in Group 215. Occupations concerned with making computations involving various aspects of production are found in Group 221.

214.137-010 DOCUMENTATION SUPERVISOR (water trans.)

Supervises and coordinates activities of workers engaged in preparing shipping documents and related reports and in classifying and rating cargo according to established tariff rates: Reviews ships' schedules and booking records to plan and schedule work activities. Assigns rating activities to workers and reviews ratings to ensure that cargo has been classified in accordance with established tariff rates. Verifies codes assigned shippers against bills of lading and assigns codes to new accounts. Assigns documentation activities to workers, such as preparing dock receipts, bills of lading, and manifests, and compiling tonnage, demurrage, and storage reports. Examines reports and documents for completeness and accuracy and gives instructions to workers regarding corrections. Issues bills of lading to shippers upon verification of documents. Confers with other supervisory personnel and shippers' representatives to clarify problems and resolve complaints. May supervise and coordinate activities of workers engaged in passenger baggage handling. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

214.137-014 SUPERVISOR, STATEMENT CLERKS (financial)

Supervises and coordinates activities of workers engaged in preparing customer bank statements for distribution, maintaining cancelled checks and customer signature files, and adjusting customer accounts: Coordinates assignments of workers preparing bank statements for delivery, reconciling account differences, and filing checks. Writes letters and makes telephone calls to recover checks returned in error and to adjust customer accounts and complaints. Assists customers in establishing depository arrangements for large accounts. Accepts stop-payment orders and directs workers in flagging customer accounts to prevent withdrawal of uncollected portions of deposits, or to prevent payment of protested checks. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.01.04 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 87

214.137-018 RATE SUPERVISOR (clerical)

Supervises and coordinates activities of TRAFFIC-RATE CLERKS (clerical) engaged in determining and quoting rates and classifications applicable to shipments of merchandise, products, and equipment: Analyzes existing rates and routes to effect reduction in transportation costs, and prepares reports of estimated savings. Confers with carriers for reduction in rates. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

214.137-022 SUPERVISOR, ACCOUNTS RECEIVABLE (utilities; waterworks) alternate titles: billing supervisor

Supervises and coordinates activities of workers engaged in tracing sources of error and correcting billing records for gas, electric-power, and water supply customers, and in processing records for advance or final billings: Interprets work procedures for subordinates. Confers with subordinates to resolve procedural problems in tracing sources of error. Reviews and corrects customer accounts to determine amounts over or under paid as result of irregular connection (meter tampering) investigations. Prepares corrected bills to reconcile errors in meter readings, using calculator. Traces source and corrects customer accounts for errors in billing rates, misapplied credits, or identifying information, such as name and address received from customer. Confers with employees of other departments to trace payments on bills under investigation by collection department and to give information pertaining to accuracy of charges on customer's bills. Performs other duties described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.02 STRENGTH: S GED: R4 M4 L3 SVP: 8 DLU: 77

214.267-010 RATE ANALYST, FREIGHT (air trans.; motor trans.; r.r. trans.; water trans.)

Analyzes existing freight rates, tariff regulations, and proposed or government-approved changes in rates to revise or recommend changes in rate structures, rules, and regulations for freight carrier: Analyzes proposals and applications for changes in rates, rules, or regulations received from rate bureaus, shippers, sales offices, and other carriers, and reviews regulations and regulatory agencies' decisions on applications filed by other carriers governing established rates and newly approved rate changes to determine required changes in company's rate charts. Compiles rate-manual sections in accordance with governmental regulations, based on factors such as handling costs, classes of merchandise transported, fuel costs, refrigeration required, business volume, and potential return trip loads. Confers with shippers, sales and rate bureau personnel, and others to discuss revised rates, rules, and regulations. Prepares revised rate schedules or submits data for publication. May propose rates for activities or services not previously rated.
GOE: 11.06.03 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

214.362-010 DEMURRAGE CLERK (r.r. trans.) alternate titles: car-record clerk

Compiles demurrage charges, using basic rates from rate tables: Communicates with consignee by telephone or letter to notify consignee of date and time of arrival of freight shipment, location, and allowable time for moving or unloading freight before demurrage charges are levied. Reviews bills of lading and other shipping documents to ascertain number of carloads of shipment and computes demurrage charges, using basic rates from rate table and adding or calculating machine. Prepares demurrage bill and forwards it to consignee or shipper. May reconsign or reroute cars on order from shippers. May prepare new waybills and bills of lading on receipt of notice of sale of carload of freight from shipper.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

214.362-014 DOCUMENTATION-BILLING CLERK (air trans.; motor trans.; r.r. trans.; water trans.)

Compiles and types transportation billing documents listing details of freight shipped by carrier: Types information on manifest, such as name of shipper, weight, destination, and charges from bills of lading and shipper's declaration. Computes totals of document items, using adding machine. Compares figures and totals on documents with statement of accounts submitted by accounting department to verify accuracy of documents. Notifies CARGO CHECKER (water trans.) to examine shipment when discrepancies are found. Resolves discrepancies on accounting records or manifest. May prepare manifest, using billing machine. May notify shipper's agent of consular visa and official stamps required and attach stamps to documents when presented by agent. May be designated by type of document prepared as Manifest Clerk (air trans.; motor trans.; r.r. trans.; water trans.); Waybill Clerk (air trans.; motor trans.; r.r. trans.; water trans.).
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

214.362-022 INSURANCE CLERK (medical ser.) alternate titles: hospital-insurance clerk; patient-insurance clerk

Verifies hospitalization insurance coverage, computes patients' benefits, and compiles itemized hospital bills: Types insurance assignment form with data, such as names of insurance company and policy holder, policy number, and physician's diagnosis. Telephones, writes, or wires insurance company to verify patient's coverage and to obtain information concerning extent of benefits. Computes total hospital bill showing amounts to be paid by insurance company and by patient, using adding and calculating machines. Answers patient's questions regarding statements and insurance coverage. Telephones or writes companies with unpaid insurance claims to obtain settlement of claim. Prepares forms outlining hospital expenses for governmental, welfare, and other agencies paying bill of specified patient.
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

214.362-026 INVOICE-CONTROL CLERK (clerical) alternate titles: purchase-order checker

Compiles data from vendor invoices and supporting documents to verify accuracy of billing data and to ensure receipt of items ordered, using calculator and computer: Compares invoices against purchase orders and shipping and re-

ceiving documents to verify receipt of items ordered. Reads computer files or computes figures to determine prices and discounts, following invoices and credit memorandums, and using calculator. Records data in control records. Contacts vendors or buyers regarding errors in partial or duplicate shipments, prices, and substitutions. Maintains file of returnable items received from or returned to vendors. Writes check or prepares voucher authorizing payment to vendors.
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 88

214.362-030 RATE CLERK, PASSENGER (motor trans.) alternate titles: charter representative
Provides fare information to passengers traveling on nonscheduled or chartered motor trips, using rate tables: Interviews customer or reviews written requests to obtain data on proposed trips. Studies maps to select or lay out and measure travel route. Refers to rate tables to gather rate data considering such items as type of vehicle, distance, destination, estimated travel and waiting time, cost of tolls, and passenger or freight service. Computes rates, using calculator. Prepares written report on rates or informs customer orally. May arrange travel accommodations for tourists [TRAVEL CLERK (hotel & rest.)].
GOE: 07.04.04 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 77

214.362-034 TARIFF INSPECTOR (r.r. trans.)
Verifies use of current tariff rates at railroad freight, passenger agent, and ticket offices: Visits offices and examines records, such as freight bills, to ascertain whether current rates are in use, in accordance with tariff schedules. Computes and verifies tariff rates applied, using calculating machine and rate books. Issues instructions to agent regarding correction of errors in rates. Compiles reports for management, identifying names of agents and locations using incorrect tariffs.
GOE: 11.10.01 STRENGTH: L GED: R4 M4 L4 SVP: 5 DLU: 77

214.362-038 TRAFFIC-RATE CLERK (clerical) alternate titles: freight-rate clerk; rate clerk
Compiles and computes freight rates, passenger fares, and other charges for transportation services, according to rate tables and tariff regulations: Examines shipping bills to obtain description of freight, and classifies freight according to rate-book description. Consults rate schedule to obtain specific rate for each item classified depending on distance shipped. Computes total freight charge, using calculator and records charges on shipping order. Calculates and records storage, redelivery, and reconsignment charges when applicable. Answers mail or telephone inquiries from shippers regarding rates, routing, packing procedures and interline transportation procedures. May examine bills of lading and file claims with transportation companies for overcharges. May keep records of freight movements.
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

214.362-042 BILLING CLERK (clerical)
Operates calculator and typewriter to compile and prepare customer charges, such as labor and material costs: Reads computer printout to ascertain monthly costs, schedule of work completed, and type of work performed for customer, such as plumbing, sheet metal, and insulation. Computes costs and percentage of work completed, using calculator. Compiles data for billing personnel. Types invoices indicating total items for project and cost amounts.
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 86

214.362-046 STATEMENT CLERK (financial)
Compares previously prepared bank statements with cancelled checks, prepares statements for distribution to customers, and reconciles discrepancies in records and accounts: Matches statement with batch of cancelled checks by account number. Inserts statements and cancelled checks in envelopes and affixes postage, or inserts statements and checks in feeder of machine which automatically stuffs envelopes and meters postage. Routes statements for mailing or over-the-counter delivery to customers. Keeps cancelled checks and customer signature files. May recover checks returned to customer in error, adjust customer account, and answer inquiries. May post stop-payment notices to prevent payment of protested checks. May encode and cancel checks, using machine. May take orders for imprinted checks.
GOE: 07.02.02 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 87

214.382-014 BILLING TYPIST (clerical) alternate titles: billing clerk; invoice clerk; order clerk
Compiles data and types invoices and bills: Reads computer files or gathers records, such as purchase orders, sales tickets, and charge slips, to compile needed data. Enters information into computer or computes amounts due, using calculator. Types invoices, listing items sold, amounts due, credit terms, and dates of shipment, using typewriter or computer. Types bills of lading and lists weight and serial number of items sold, using specification book. May type shipping labels. May type credit memorandums to indicate returned or incorrectly billed merchandise. May type credit forms for customers or finance companies. May post transactions to accounting records, such as work sheet, ledger, or computer files. May be designated according to type of billing done, such as Bill-Of-Lading Clerk (clerical); C.O.D. Biller (clerical) and Mail-Order Biller (retail trade; wholesale tr.). If worker is involved with compiling and typing transportation billing documents and verifying related accounting records, see DOCUMENTATION-BILLING CLERK (air trans.; motor trans.; r.r. trans.; water trans.) 214.362-014.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 80

214.382-018 C.O.D. CLERK (clerical) alternate titles: cash-on-delivery clerk; collect-on-delivery clerk
Sorts c.o.d. bills according to type of delivery or consignor and computes charges on bills and amounts collected: Sorts c.o.d. bills according to type of delivery or consignor, such as will-call parcel post, or store delivery. Computes total of bills and verifies total against accounting records. Calculates and records amount of money collected on delivery route for c.o.d. bills, using adding and calculating machines. May search customer records to correct addresses on misdirected packages [WRONG-ADDRESS CLERK (retail trade)].
GOE: 07.02.04 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

214.382-022 INTERLINE CLERK (motor trans.; r.r. trans.)
Compiles and computes freight and passenger charges payable to participating carriers on interline business: Examines waybills and ticket sales records to compute number of miles each carrier transported freight or passengers. Computes freight or passenger charges payable to each carrier, using basic rates from rate table and calculating machine. Records results of calculations on special forms. Reviews statements submitted by other companies to determine if portion of charges received is correct. May distribute, to appropriate airlines, revenue from passengers traveling on more than one carrier on through passage and be designated Passenger-Interline Clerk (air trans.). May compile records of daily freight car rental fees due to other carriers and be designated Per Diem Clerk (r.r. trans.).
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

214.382-026 REVISING CLERK (motor trans.; r.r. trans.)
Verifies and revises freight and tariff charges on bills for freight shipments, using freight and tariff rate tables and schedules, according to classification of items shipped. Computes additional charges for reconsignment of freight, using adding machine. Records on special form additional, excess, or short charges made for each freight bill.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

214.382-030 SETTLEMENT CLERK (smelt. & refin.)
Compiles and computes payment due shipper for ores, concentrates, scrap metal, and other metal products forwarded to plant for processing, using adding machine and calculator. Bases computations on weight figures from freight bills and laboratory report of moisture content and ore analysis. May obtain registered check for required amount and remit to shipper.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

214.387-010 BILLING-CONTROL CLERK (utilities)
Reviews and posts data from meter books, computes charges for utility services, and marks special accounts for billing purposes: Marks accounts with fixed demands, combined bills for more than one meter connection, and those requiring use of constant multipliers to extend meter reading to actual consumption. Posts late and special meter readings and estimated readings. Examines meter-reading entries for evidence of irregular conditions, such as defective meters or use of service without contract, and prepares forms for corrective actions by others. Marks accounts for no bill when irregular conditions cannot be resolved before billing date.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

214.387-014 RATE REVIEWER (utilities)
Reviews rates for conformity to regulations, and compiles data pertaining to operating costs, revenues, and volume of gas or electric power: Reviews reports of changes in gas or consumption and complaints about high bills. Reviews rate investigation reports, analyses of billings, and rate assignments for completeness and conformity to regulation. Reviews special rate accounts to determine changes which will benefit customer. Compiles data for reports pertaining to costs, revenues, and volumes of gas or electricity consumed. Draws graphs and charts to illustrate changing trends, using drafting instruments.
GOE: 11.06.03 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

214.387-018 SERVICES CLERK (water trans.)
Compiles reports and calculates tariff assessments for services rendered vessels using harbor facilities: Reads register of merchant vessels to verify tonnage, registry, and ship's owner. Calculates charges and types tariff form for service furnished, such as gallons of water and kilowatts of electricity used during vessel's stay in harbor. Keeps records of ships entering port and tonnage of cargo unloaded or loaded. Submits reports to accounting and traffic departments for billing purposes.
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

214.462-010 ACCOUNTS-ADJUSTABLE CLERK (r.r. trans.)
Computes corrected freight charges from waybill data, using comptometer, and posts corrections on freight bills. Corresponds with other railroads to determine accuracy of billing and to arrange for settlement of adjusted accounts.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 77

214.467-010 FOREIGN CLERK (clerical)
Computes duties, tariffs, and weight, volume, and price conversions of merchandise exported to or imported from foreign countries: Examines documents, such as invoices, bills of lading, and shipping statements, to verify conversion of merchandise weights or volumes into system used by other country. Converts foreign currency figures into United States monetary equivalents, or domestic currency into foreign equivalents, using rate charts. Calculates duties or tariffs to be paid on merchandise, using calculating machine. May correspond with foreign companies. May be designated according to type of transaction as Customs-Entry Clerk (clerical); Export Clerk (clerical); Import Clerk (clerical).

GOE: 07.02.04 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 77

214.467-014 PRICER, MESSAGE AND DELIVERY SERVICE (business ser.)

Computes charges for pickup and delivery of items, such as documents, messages, and packages, using rate manuals and zone maps: Sorts dispatch tickets and reads postal zone maps and street directories to determine zone categories for pickup and delivery of items. Computes charges for services in various zones, using rate manuals, and quotes rates to customers upon request. Records charges on report form.
GOE: 07.02.04 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 86

214.482-010 BILLING-MACHINE OPERATOR (clerical) alternate titles: bill clerk; biller; billing clerk; invoicing-machine operator

Operates billing machines with or without computing devices to prepare bills, statements, and invoices to be sent to customers, itemizing amounts customers owe: Inserts blank billing sheets in machine and sets carriage. Transcribes data from office records, such as customer's name, address, and items purchased or services rendered. Calculates totals, net amounts, and discounts by addition, subtraction, and multiplication, and records computations. May make computations on separate adding and calculating machines. May be designated according to type of bill prepared as Delinquent-Notice-Machine Operator (clerical).
GOE: 07.06.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 87

214.482-014 DEPOSIT-REFUND CLERK (utilities)

Prepares final bills for mailing to gas and electric-power customers: Computes and prepares final bills, using adding machine and calculator. Keeps file of deposit certificates surrendered by customer and attaches certificates to final bills for refund of deposit. Reviews accounting records to ensure that all charges and credits are included in final bills. May compute interest due customers for amounts on deposit.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

214.482-018 MEDICAL-VOUCHER CLERK (insurance) alternate titles: examiner-rating clerk; medical-fee clerk

Examines vouchers forwarded to insurance carrier by doctors who have made medical examinations of insurance applicants, and approves vouchers for payment, based on standard rates. Computes fees for multiple examinations, using adding machine. Notes fee on form and forwards forms and vouchers to appropriate personnel for further approval and payment.
GOE: 07.02.04 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

214.482-022 RATER (insurance) alternate titles: policy rater; rate inserter; rating clerk

Calculates amount of premium to be charged for various types of insurance, using rate book, calculator, and adding machine: Selects premium rate based on information in case record folder relating to type and amount of policy based on standard risk factors, such as use and age of automobile, location and value of property, or age of applicant. Adds premium rates of basic policy and endorsements to compute total annual premium. Records rates on abstract sheet (worksheet), from which policies will be typed. May calculate commissions.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

214.487-010 CHART CALCULATOR (utilities)

Computes power factor and net amount of electric power consumed by commercial customers and determines peak load demand to verify application of appropriate rates. Enters information on record forms for monthly billing purposes. If worker compiles data for statistical reports or reviews rates to determine possible adjustments for commercial consumers of gas and electric power, see RATE REVIEWER (utilities).
GOE: 07.02.04 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 77

214.587-010 TELEGRAPH-SERVICE RATER (tel. & tel.) alternate titles: clerk, rating; rate marker

Counts number of words in telegrams dispatched from telegraph office, consults rates in rate book, and marks charges on duplicates of messages for use in billing customers.
GOE: 07.07.03 STRENGTH: S GED: R2 M2 L2 SVP: 2 DLU: 77

214.587-014 TRAFFIC CLERK (clerical)

Records incoming and outgoing freight data, such as destination, weight, route-initiating department, and charges: Ensures accuracy of rate charges by comparing classification of materials with rate chart. May keep file of claims for overcharges and for damages to goods in transit.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L2 SVP: 4 DLU: 77

215 PAYROLL, TIMEKEEPING, AND DUTY-ROSTER CLERKS

This group includes occupations concerned with making computations for and transcribing data to payroll and timekeeping records; computing earnings based on units produced or services rendered; preparing and distributing pay envelopes; and preparing duty rosters and work schedules.

215.137-010 CREW SCHEDULER, CHIEF (air trans.)

Supervises CREW SCHEDULERS (air trans.) and participates in preparation of duty rosters for crewmembers of scheduled airline flights: Assigns crews according to seniority, choice, and qualifications. May prepare or assist in preparation of section's budget. May audit expense vouchers and related invoices.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

215.137-014 SUPERVISOR, PAYROLL (clerical) alternate titles: payroll clerk, chief; timekeeper supervisor

Supervises and coordinates activities of workers engaged in recording hours of work, processing time records, compiling payroll statistics, maintaining payroll control records, and calculating payrolls: Reviews, or directs review of, personnel records to determine names, rates of pay, and occupations of newly hired workers, and changes in wage rates and occupations of employees on payroll. Records, or directs recording of, new or changed pay rates in payroll register or computer files. Directs computation of pay according to company policy. Directs compilation and preparation of other payroll data, such as pension, insurance, and credit union payments. Reviews and approves payroll deductions. Interprets company policies and government regulations affecting payroll procedures. Directs preparation of government reports. Reviews payroll to ensure accuracy. May direct activities of workers engaged in computing costs of production, such as labor and equipment. Performs duties described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.05 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 80

215.137-018 SUPERVISOR, FORCE ADJUSTMENT (tel. & tel.) alternate titles: force dispatcher

Coordinates work assignments and supervises clerical personnel preparing work schedules: Plans and prepares work force schedules from statistical data, such as budget estimates and telephone or telegraphic service and traffic records. Compiles previous traffic-flow counts from transmitting and receiving records, or supervises clerks engaged in compiling flow data to aid in predicting operating needs. Analyzes past flow counts, and personnel data, such as turnover, absenteeism, or overtime. Prepares or revises personnel schedules for long- or short-range periods, considering vacations and budget allotments. May direct preparation of comparative reports and charts to identify operating deficiencies. When working in telegraph offices, assigns personnel to branch offices within geographical area upon receipt of personnel shortage reports. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

215.167-010 CAR CLERK, PULLMAN (r.r. trans.) alternate titles: pullman clerk

Assigns and dispatches sleeping cars to railroad company requesting cars: Keeps record of car movement and where assigned, using train schedules and movement charts. Assigns CONDUCTORS, PULLMAN (r.r. trans.) to trains for trips and notifies them of assignments.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

215.362-010 CREW SCHEDULER (air trans.)

Compiles duty rosters of flight crews and maintains records of crewmembers' flying time for scheduled airline flights: Prepares flight register which crewmembers sign to indicate their preference and availability for flights and time they wish to be called prior to each flight. Types names of crewmembers onto flight schedule in order of seniority to indicate flights to which crewmembers are assigned. Posts names of extra crewmembers in order of seniority on reserve list. Selects replacements from reserve list and notifies replacement when needed. Computes and logs cumulative flight time for crewmembers and removes crewmember's name from flight schedule when flying time limit as prescribed by Federal Aviation Administration has been reached. Schedules vacations as requested by crewmembers. May notify crewmembers of assignments, using telephone.
GOE: 07.05.01 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

215.362-014 DISPATCHER CLERK (r.r. trans.)

Schedules work for train crew or individual workers and keeps time records: Enters names of workers on assignment sheet for each trip on basis of seniority. Notifies workers of assignment, establishes availability, and assigns replacement crew when needed. Keeps record of departure and return of crew or worker for each trip, recording total time worked, and number of miles covered, using calculator.
GOE: 07.02.05 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

215.362-018 FLIGHT-CREW-TIME CLERK (air trans.)

Compiles flight time record of flight officers for payroll and crew-scheduling departments to ensure accuracy of payroll and legality of flights: Posts data, such as time in flight, type of aircraft, mileage flown, and weight of aircraft, onto flight time records, using posting machine. Reviews union agreements to ascertain payroll factors, such as meal expense allowance, billeting allotment, and rates of pay. Computes pay [PAYROLL CLERK (clerical)]. Compares figures with flight officers's log to detect and reconcile discrepancies. Notifies CREW SCHEDULERS (air trans.) of total accumulated flight time of each officer and submits pay records to payroll section.
GOE: 07.02.05 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

215.362-022 TIMEKEEPER (clerical)

Compiles employees' time and production records, using calculator or computer: Reviews timesheets, workcharts, and timecards for completeness. Computes total time worked by employees, using calculator or computer, posts time worked to master timesheet, and routes timesheet to payroll department. May pay employees. May calculate time worked and units produced by piece-work or bonus work employees, using calculator or computer, and be designated Time Checker (clerical) or Work Checker (clerical). May locate workers on

jobs at various times to verify attendance of workers listed on daily spot sheet and be designated Spotter (any industry). May interview employees to discuss hours worked and pay adjustments to be made and be designated Pay Agent (clerical).
GOE: 07.02.05 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 80

215.367-010 ASSIGNMENT CLERK (motor trans.) alternate titles: assignment agent; bulletin clerk
Assigns operating personnel of busline to partial, temporary, or rush hour runs to meet daily human resource and transportation needs of company: Records driver staffing requirements for unstaffed scheduled runs from data received from personnel department. Prepares list of extra drivers available in ready room for assignment for regular, special, or charter trips. Selects drivers according to such considerations as seniority, experience, and time, location, and duration of assignment. Records and submits data on assignments to personnel department. May prepare and issue bulletins regarding policy, procedure, and schedule changes.
GOE: 07.05.01 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

215.367-014 PERSONNEL SCHEDULER (clerical) alternate titles: scheduler and planner
Compiles weekly personnel assignment schedules for production department in manufacturing plant: Studies production schedules and staffing tables to ascertain personnel requirements. Determines and records work assignments according to worker availability, seniority, job classification, and preferences. Compiles and oversees in-plant distribution of work schedule. Adjusts schedules to meet emergencies caused by extended leave or increased production demands. Compiles annual seniority lists on which employees indicate vacation preferences and approves leave requests to prevent production losses.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 77

215.367-018 TAXICAB COORDINATOR (motor trans.)
Assigns taxicabs to TAXI DRIVERS (motor trans.) and maintains record of assignments and trip data. Reviews report of meter readings taken from incoming cabs for accuracy or takes and records taximeter readings. Compiles and maintains records of mileage traveled and fuel used.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L2 SVP: 5 DLU: 77

215.382-014 PAYROLL CLERK (clerical)
Compiles payroll data, and enters data or computes and posts wages, and reconciles errors, to maintain payroll records, using computer or calculator: Compiles payroll data, such as hours worked, sales or piecework, taxes, insurance, and union dues to be withheld, and employee identification number, from time sheets and other records. Prepares computer input forms, enters data into computer files, or computes wages and deductions, using calculator, and posts to payroll records. Reviews wages computed and corrects errors to ensure accuracy of payroll. Records changes affecting net wages, such as exemptions, insurance coverage, and loan payments for each employee to update master payroll records. Records data concerning transfer of employees between departments. May prorate expenses to be debited or credited to each department for cost accounting records. May prepare periodic reports of earnings, taxes, and deductions. May keep records of leave pay and nontaxable wages. May prepare and issue paychecks.
GOE: 07.02.05 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 88

215.563-010 CALLER (r.r. trans.)
Notifies members of train, engine, or yard crews to report for duty or meetings: Obtains addresses and telephone numbers from personnel records. Talks to workers by telephone to inform them of time to report. Positions worker's name tag on assignment board. Records reason given by worker unable to report and gives information to TRAIN DISPATCHER (r.r. trans.) or DISPATCHER CLERK (r.r. trans.).
GOE: 07.07.03 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

216 ACCOUNTING AND STATISTICAL CLERKS

This group includes occupations concerned with computing, calculating, and posting of financial, statistical, and numerical data to maintain accounting records, to use in statistical studies, and to record details of business transactions. Occupations which require knowledge of bookkeeping principles and which are concerned with classifying, recording, and summarizing numerical data, and with making computations to compile and keep financial records are found in Group 210. Occupations concerned with managing, controlling, and monitoring operations of computers and peripheral equipment are found in Group 213. Occupations concerned with making computations for purposes of preparing or verifying bills and statements of amounts due for items purchased or services rendered are found in Group 214. Occupations concerned with making computations and transcribing data to payroll and timekeeping records are found in Group 215.

216.132-010 SUPERVISOR, ACCOUNTING CLERKS (clerical)
Supervises and coordinates activities of workers engaged in calculating, posting, verifying, and typing duties to obtain and record financial data for use in maintaining accounting and statistical records: Compiles reports required by management or government agencies. May perform duties of ACCOUNTING CLERK (clerical) 216.482-010 and BOOKKEEPER (clerical) 210.382-014. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 87

216.132-014 SUPERVISOR, SECURITIES VAULT (financial)
Supervises and coordinates activities of workers engaged in recording securities transactions and receiving and delivering securities to and from trust vault and oversees vault safekeeping procedures and controls: Plans and directs activities of workers engaged in recording securities interest and dividends and maintaining securities transaction records. Plans and implements procedures for safekeeping of securities. Explains safekeeping policies and procedures to workers and oversees compliance with procedures. Assigns vault combination numbers and changes combination periodically. Sets vault clock daily for following morning opening time. Reviews visitor register to verify that only authorized persons were admitted to vault. Examines trust securities stored in vault, verifies descriptions, signatures, and certificate or serial numbers, and computes total value of all securities, using calculator or computer, to assist bank AUDITOR (profess. & kin.) 160.167-054 in performing audits. Reviews securities documents to ensure that documents correspond with descriptions on delivery-request ticket prepared by TRUST-VAULT CLERK (financial) 216.367-014 for delivery to authorized persons. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 78

216.137-010 COST-AND-SALES-RECORD SUPERVISOR (utilities) alternate titles: rate-and-cost analyst; statistician
Supervises and coordinates activities of STATISTICAL CLERKS (clerical) engaged in compiling power-generation and transmission data, preparing charts and graphs, and in making statistical computation for utility district: Directs maintenance and storage of records, such as maps, right-of-way deeds, and joint-use agreements. Compiles running totals of power produced by various generating units and totals of power exchanged with connecting systems, using calculator and adding machine. Analyzes and interprets trends to assist in planning budgets and construction expenditures, conferring with management, department heads, and large industrial customers. Directs preparation of power-generation and transmission charts and graphs to show trends in sales, operating costs, and revenue of company. May assist in making rate analyses, applying statistical method to investigate comparative rates with other utilities and to calculate rate formulas. May compile data for various power consumption reports required by government and utility associations. May compute percentages of monthly increase or decrease in gas consumption. May calculate sellers' weekly commissions. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.03 STRENGTH: S GED: R5 M5 L4 SVP: 7 DLU: 77

216.137-014 TRANSFER CLERK, HEAD (financial)
Supervises and coordinates activities of TRANSFER CLERKS (financial) 216.362-046 in transactions relating to stock certificates, applying knowledge of company policies and procedures, and commercial law: Explains company policies to stockholders with regard to stock transfers and payment of dividends. Examines certificates presented for transfer to verify legality of transactions. Answers inquiries concerning stock transfer requirements, dividend payments, and tax on certificates. Performs duties as described under SUPERVISOR (clerical) Master Title. May arrange meetings for bank-shareholders.
GOE: 07.01.02 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

216.362-014 COLLECTION CLERK (financial)
Receives and processes collection items (negotiable instruments), such as checks, drafts, and coupons presented to bank by customers or corresponding banks: Reads letter of instructions accompanying negotiable instruments to determine disposition of items. Debits bank account and credits customer's account to liquidate outstanding collections. Computes interest on bills of exchange (drafts), using adding machine or computer terminal, and lists debits and credits on liability sheet, or enters information into computer system, to record customer's outstanding balance. Examines, calculates interest on, endorses, records, and issues receipts, and mails outgoing collections for payment. Traces unpaid items to determine reasons for nonpayment and notifies customer of disposition. May prove and balance daily transactions. May act as agent for collections payable in United States and possessions and be designated Out-of-Town-Collection Clerk (financial). May process collection items drawn on local bond and securities exchanges or transfers within a locality and be designated Local Collection Clerk (financial). May collect foreign bills of exchange and be designated Foreign-Collection Clerk (financial). May process matured bonds and coupons and be designated Coupon-and-Bond-Collection Clerk (financial); Coupon-Collection Clerk (financial).
GOE: 07.02.02 STRENGTH: S GED: R4 M4 L4 SVP: 5 DLU: 77

216.362-022 FOOD-AND-BEVERAGE CONTROLLER (hotel & rest.) alternate titles: control clerk, food-and-beverage
Compiles and computes amounts and costs of food bought and sold from records of CASHIER (clerical) II and other summaries. Operates calculating machine to compute profit or loss on each item of food or beverages sold in restaurant and individual departments and records data to keep perpetual inventory.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L2 SVP: 5 DLU: 77

216.362-026 MORTGAGE-ACCOUNTING CLERK (clerical) alternate titles: amortization-schedule clerk
Keeps records of mortgage loans in mortgage loan establishment, performing any of following clerical duties: Records data, such as loan number, selling

price, and taxes of mortgaged property. Computes interest and principal payments on loans, using calculating machines. Prepares applications for insurance on property and for extensions on delinquent loans. Types or posts by hand, such data as legal description of property, name of mortgager, amount and type of hazard insurance on property, and results of computations that break down monthly payments into principal, interest, taxes, and optional items. Prepares copies of documents for filing and mailing. May file documents and records.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 3 DLU: 77

216.362-034 RESERVES CLERK (financial)

Compiles records of fund reserves of bank and branches to ensure conformity with Federal Reserve requirements: Reviews cash orders from branches to determine that order follows established procedure and amount meets with bank limitations and requirements. Posts order to department record sheet, or computer files, using computer. Telephones order to Federal Reserve Bank, and prepares letter to Federal Reserve confirming order, using computer or typewriter. Charges or credits accounts, following bank regulations. Keeps records of bank balance with Federal Reserve Bank.
GOE: 07.02.01 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

216.362-038 ELECTRONIC FUNDS TRANSFER COORDINATOR (financial)

Compiles and reconciles data involving electronic transfer of funds to maintain accounting records: Examines electronic funds transaction entries on documents, such as bank statements and printouts, for completeness and accuracy. Adds debits and credits, using adding machine or calculator, to ensure that figures balance. Identifies and corrects errors or calls customers, other bank personnel, or personnel from other financial institutions, such as correspondent banks, Automated Clearing House, or Federal Reserve Bank, to obtain information needed to reconcile differences. Posts transaction data to specified accounts, using ledger sheets or computer. May prepare checks to deposit funds in specified accounts. May transmit funds between specified accounts by wire [WIRES-TRANSFER CLERK (financial) 203.562-010].
GOE: 07.02.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 89

216.362-042 MARGIN CLERK I (financial)

Compiles data, using computer, to determine customer margin (equity) in stock purchased: Totals customer accounts and computes difference between purchase price of stock and present market value, using calculator, to show amount due for brokerage fees. Notifies REGISTERED REPRESENTATIVE (financial) 250.257-018 or other workers when customer margin is less than government regulations or brokerage firm requirements. May solve customer margin account problems, using customer account information and transaction records.
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L3 SVP: 6 DLU: 89

216.362-046 TRANSFER CLERK (financial) alternate titles: operations clerk; stock-transfer clerk; stock-transfer technician

Records transfer of securities and corrects problems related to transfer: Enters information, such as type and amount of securities that client wishes to purchase or sell, into computer terminal. Reviews client instructions for transfer of securities. Examines securities certificates to verify that information is correct, and mails certificates to department or company specializing in transfer of securities certificates. Receives new certificates from department or company, and sends certificates to client to complete transfer. Talks with coworkers, including REGISTERED REPRESENTATIVES (financial) 250.257-018 to correct problems related to transfer of securities.
GOE: 07.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 89

216.367-014 TRUST-VAULT CLERK (financial) alternate titles: securities auditor; vault custodian

Compiles security transaction records and receives and delivers securities to and from trust vault: Opens combinations on cabinets in vault. Examines securities deposited for safekeeping, verifies descriptions and signatures, and files securities according to customer names and account number. Records securities transactions including purchases, exchanges, and stock splits to maintain control of customer accounts. Releases securities from vault upon authorized request. Acts as agent for bank by observing bank auditors auditing securities in vault. May examine collateral to ensure conformity with loan specifications.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

216.382-022 BUDGET CLERK (clerical) alternate titles: budget-record clerk; budget-report clerk; fiscal clerk

Prepares budgets based on previous budget figures or estimated revenue and expense: Reviews records of sales and actual operating expenses, such as payrolls and material costs. Compiles tables of revenues and expenses to show current budget status. Writes justifications for overrun or underrun of budget estimates. Computes ratios and percentages to make interdepartmental comparisons, indicate trends, and show other selected factors. Prepares charts and graphs. Tabulates statistical data for presentation in miscellaneous budget reports, using calculator and typewriter or computer. May prepare financial statement showing profit and loss. May examine budget and requisition funds and be designated Expenditure-Requisition Clerk (utilities).
GOE: 07.01.04 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 87

216.382-026 CLEARING-HOUSE CLERK (financial) alternate titles: clearing-distribution clerk

Compiles settlement data and submits checks, drafts, and other items to clearinghouse association for exchange and settlement with other banks: Sorts items into bundles, lists items, and totals amounts, using adding machine or calculator. Posts totals to clearinghouse settlement sheet. Mails or delivers items to clearinghouse. Accepts items from clearinghouse that have been drawn on own bank and posts totals on settlement sheet. Totals debit and credit columns and computes net balance. Submits sheet to clearinghouse for verification. May maintain telephone contact with bank personnel and others to locate missing checks, correct errors, and reconcile differences in records.
GOE: 07.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

216.382-034 COST CLERK (clerical) alternate titles: cost-accounting clerk; expense clerk

Compiles production or sales cost reports on unit or total basis for department or working unit: Calculates individual items, such as labor, material, and time costs, relationship of sales or revenues to cost, and overhead expenditures, using calculating machine. Examines records, such as time and production sheets, payrolls, operations charts and schedules, to obtain data for calculations. Prepares reports showing total cost, selling prices, or rates profits. May be designated according to work performed as Cost-Estimating Clerk (utilities); Operating-Cost Clerk (clerical).
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 88

216.382-046 MARGIN CLERK II (financial)

Compiles daily stock quotations and compares data with customer margin accounts to determine market prices in relation to collateral held by bank. Computes and records fluctuations and reports need of additional collateral to secure loans. May discuss price fluctuations with customers, REGISTERED REPRESENTATIVES (financial) 250.257-018, and others to monitor stock trends in relation to bank's margin loan accounts.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

216.382-050 POLICY-VALUE CALCULATOR (insurance)

Compiles and computes loan or surrender value of life insurance policy, using calculator, and rate books and tables: Computes amount payable to policyholder who drops insurance, allows insurance to lapse, or requests loan on policy, considering factors, such as unclaimed dividends, premiums paid in advance, length of time held, and principal sum (loan value), using calculator. Records values on sheet for preparation of correspondence to policyholder and entry onto master file. When working on dropped policies and policyholder requests full cash value, is known as Cash-Surrender Calculator (insurance). When working on dropped policies and policyholder does not request full cash value, prorates cash value to determine time policy may be kept in force and is known as Extended-Insurance Clerk (insurance). When working on policy loans, calculates repayments, using interest tables, and is known as Policy-Load Calculator (insurance). May specialize in data related to pension plans and life insurance, such as premiums, dividends, retirements, and death benefits, and be designated Calculation Clerk (insurance). May verify and recompute calculations made by other workers and be designated Calculation Reviewer (insurance).
GOE: 07.02.03 STRENGTH: S GED: R3 M2 L2 SVP: 5 DLU: 77

216.382-054 RECEIPT-AND-REPORT CLERK (water trans.) alternate titles: cost-report clerk

Prepares reports of labor and equipment costs incurred in loading and unloading ship cargoes: Compiles reports of tonnage and type of cargo handled, labor charges involved in loading and unloading cargo, and charges for equipment used, such as cranes, barges, and conveyors. Computes cost per ton for each type of cargo handled and prepares report of total costs for each ship.
GOE: 07.02.03 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

216.382-058 RETURNED-ITEM CLERK (financial) alternate titles: rejected-items clerk

Returns unpaid checks from correspondent banks, branches, or individual customers to adjust and balance accounts: Sorts returned checks into debit and credit groups. Types debit and credit forms listing amount, date, name of maker, name of bank, and reason for return, in order to adjust accounts and inform customers of nonpayment, using typewriter or computer. Totals and balances checks received, using adding machine or calculator, and submits checks and recapitulation sheet to department head. Visually examines checks to determine which checks to process, setting aside checks with no account, no signature on file, or forgeries for review by law enforcement official. Exchanges checks received by mistake with representatives of other banks. Photographs items returned to customers and other banks [PHOTOGRAPHIC-MACHINE OPERATOR (clerical) 207.685-018]. Files copies of forms.
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 87

216.382-062 STATISTICAL CLERK (clerical) alternate titles: record clerk; report clerk; tabulating clerk

Compiles data and computes statistics for use in statistical studies, using calculator and adding machine: Compiles statistics from source materials, such as production and sales records, quality control and test records, personnel records, timesheets, survey sheets, and questionnaires. Assembles and classifies statistics, following prescribed procedures. Computes statistical data according to formulas, using calculator. May compile and compute statistics, using computer. May verify authenticity of source material. May be designated according to type of statistics compiled as Census Clerk (government ser.); Mileage Clerk (r.r. trans.); Production-Statistical Clerk (clerical); Sales-Record Clerk (clerical); Steam-Plant Records Clerk (utilities); Time-Analysis Clerk (clerical); Traffic Enumerator (clerical). May compile actuarial statistics, charts, and graphs and

be designated Actuarial Clerk (insurance). May compile data and statistics from media guides and team data for use during televised sporting event and be designated Statistician (radio-tv broad.).
GOE: 07.02.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 88

216.382-066 STATISTICAL CLERK, ADVERTISING (retail trade) alternate titles: advertising clerk
Compiles and tabulates statistical records showing cost of advertising, volume of advertising as compared with competitors, amount of merchandise sold following advertisements as compared to amount sold without advertising, and other pertinent statistics. Operates calculating and adding machines to compute data. Files copies of advertisements.
GOE: 07.02.03 STRENGTH: S GED: R3 M3 L2 SVP: 4 DLU: 77

216.462-010 BOOKING PRIZER (tobacco)
Verifies weight and identifying data stenciled on hogsheads of tobacco and records data in prize books (ledgers): Removes ticket from hogshead and verifies computations of net weight to determine whether figures recorded by WEIGHER, PRODUCTION (any industry) are correct. Listens as BULL-GANG WORKER (tobacco) calls out hogshead number and grade stenciled on hogshead and compares data with that recorded on hogshead ticket. Instructs STENCILER (any industry) to correct markings. Records hogshead number, tobacco grade, and weight in appropriate prize book. Computes total weight for each page of prize book, using adding machine, and records totals.
GOE: 05.09.03 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

216.482-010 ACCOUNTING CLERK (clerical)
Performs any combination of following calculating, posting, and verifying duties to obtain financial data for use in maintaining accounting records: Compiles and sorts documents, such as invoices and checks, substantiating business transactions. Verifies and posts details of business transactions, such as funds received and disbursed, and totals accounts, using calculator or computer. Computes and records charges, refunds, cost of lost or damaged goods, freight charges, rentals, and similar items. May type vouchers, invoices, checks, account statements, reports, and other records, using typewriter or computer. May reconcile bank statements. May be designated according to type of accounting performed, such as Accounts-Payable Clerk (clerical); Accounts-Receivable Clerk (clerical); Bill-Recapitulation Clerk (utilities); Rent and Miscellaneous Remittance Clerk (insurance); Tax-Record Clerk (utilities).
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 88

216.482-018 AUDIT-MACHINE OPERATOR (clerical)
Adds sales slips or register tapes, using electrically powered auditing machine. Computes subtotals for individual sales departments and types of sales, such as cash, charge, installment, and will-call. Verifies daily or periodic balances against predetermined figures.
GOE: 07.06.02 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

216.482-022 CALCULATING-MACHINE OPERATOR (clerical) alternate titles: calculator operator
Computes and records statistical, accounting and other numerical data, utilizing knowledge of mathematics and using machine that automatically performs mathematical processes, such as addition, subtraction, multiplication, division, and extraction of roots: Calculates statistical, accounting, and other numerical data, using calculating machine, and posts totals to records, such as inventories and summary sheets. May verify computations made by other workers. May be designated according to subject matter as Formula Figurer (paint & varnish); Premium-Note Interest-Calculator Clerk (insurance). May compute and record inventory data from audio transcription, using transcribing machine and calculator, and be designated Inventory Transcriber (business ser.). May be designated according to type of computations made as Weight Calculator (shipboat mfg.).
GOE: 07.02.02 STRENGTH: S GED: R3 M3 L2 SVP: 3 DLU: 81

216.482-026 DIVIDEND-DEPOSIT-VOUCHER CLERK (insurance) alternate titles: dividend-deposit-entry clerk
Keeps record of accruing dividends on insurance policies and calculates and records interest due on them, using adding machine, calculator, statistical manuals, and rate tables.
GOE: 07.02.02 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

216.482-030 LAUNDRY PRICING CLERK (laundry & rel.) alternate titles: pricer
Computes cost of customers' laundry by pricing each item on customers' lists, using adding machine, calculating machine, or comptometer. May keep inventory of customers' laundered articles. May prepare statements to be sent to customers.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L2 SVP: 3 DLU: 77

216.482-034 DIVIDEND CLERK (financial) alternate titles: operations clerk
Computes, records, and pays dividends to customers of brokerage firm: Reviews stock records and reports to determine customer stock ownership on record date. Totals stock owned by customers and computes dividends due, using calculator. Records dividends due, and enters information into customer accounts, using computer. Reviews customer accounts to obtain dividend payment instructions, and pays dividends and interest due to customers. Solves dividend related problems with customer accounts, applying knowledge of policies and procedures concerning payment of dividends and interest. May perform other clerical tasks such as filing, typing, and operating office machines.
GOE: 07.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 90

216.567-010 TICKET MARKER (wholesale tr.)
Records price, name of buyer, and grade of tobacco on tickets attached to piles or baskets of tobacco as tobacco is auctioned to highest bidder. Signals purchaser to raise bids that are below government support price. May perform other clerical tasks during periods between auction sales.
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

216.587-010 BOOKING CLERK (wholesale tr.)
Copies name of buyer, grade, and price per pound from tickets attached to baskets of tobacco onto sales sheets with prelisted number of pounds in each basket. Submits sales sheets to auction warehouse office for computation of total amount due each grower.
GOE: 05.09.02 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

216.685-010 GAS USAGE METER CLERK (petrol. refin.; pipe lines; utilities) alternate titles: chart clerk
Tends machine, equipped with pen attachments and meter charts, that computes volume of gas flowing through meter: Positions chart on chart plate. Starts machine to revolve chart and actuate computing mechanism. Pulls levers to guide pens along static pressure and volume curve lines. Removes chart and records computation on back of chart.
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

217 ACCOUNT-RECORDING-MACHINE OPERATORS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with operating machines to keep quantitative records and accounts. Occupations which require knowledge of bookkeeping principles and which are concerned with classifying, recording, and summarizing numerical data, and with making computations to compile and keep financial records are found in Group 210. Occupations concerned with operating machines to receive and disburse money are found in Group 211. Occupations concerned with managing, controlling, and monitoring operations of computers and peripheral equipment are found in Group 213. Occupations concerned with operating machines to prepare bills, invoices, and statements are found in Group 214. Occupations concerned with operating machines to prepare payroll records are found in Group 215. Occupations concerned with operating machines to perform computing, calculating, and posting of financial, statistical, and numerical data are found in Group 216.

217.132-010 PROOF-MACHINE-OPERATOR SUPERVISOR (financial)
Supervises and coordinates activities of workers engaged in operating machines to encode, add, cancel, photocopy, and sort checks, drafts, and money orders for collection, and to prove records of transactions: Locates check copies and proof records to answer inquiries from staff or customers. Prepares journal voucher to correct account when error is found. Requests equipment maintenance and repair from vendors. Participates in work of subordinates. May compile check processing cost information for management use in determining service fees. May supervise retention and retrieval of microfilmed checks [SUPERVISOR, FILES (clerical) 206.137-010]. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.06.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 87

217.382-010 PROOF-MACHINE OPERATOR (financial) alternate titles: proof clerk; transit clerk
Operates machines to encode, add, cancel, photocopy, and sort checks, drafts, and money orders for collection and to prove records of transactions: Places checks into machine that encodes amounts in magnetic ink, adds amounts, and cancels check. Enters amount of each check, using keyboard. Places encoded checks in sorter and activates machine to automatically microfilm, sort, and total checks according to bank drawn on. Observes panel light to note check machine cannot read. Reads check and enters data, such as amount, bank, or account number, using keyboard. Compares machine totals to listing received with batch of checks and rechecks each item if totals differ. Encodes correct amount or prepares transaction correction record, if error is found. Bundles sorted check with tape listing each item to prepare checks, drawn on other banks, for collection. May enter commands to transfer data from machine to computer. May operate separate photocopying machine. May clean equipment and replace printer ribbons, film, and tape. May manually sort and list items for proof or collection. May record, sort, and prove other transaction documents, such as deposit and withdrawal slips, using proof machine.
GOE: 07.06.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 87

217.485-010 CURRENCY COUNTER (financial) alternate titles: currency-machine operator
Sorts and counts paper money, using automatic currency-counting machine: Examines money to detect and remove counterfeit, mutilated, and worn bills. Requisitions replacements. Sorts bills according to denomination or federal reserve district number, and inserts bills into slot or hopper of machine to be automatically counted. Verifies totals registered on machine against amount of deposit reported by member bank or depositor, using calculator, and posts shortage or overage to account. Bundles and wraps counted money to be placed in vault. May sort, count, and wrap coins [COIN-COUNTER-AND-WRAPPER (financial) 217.585-010].
GOE: 05.12.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 89

17.585-010 COIN-COUNTER-AND-WRAPPER (clerical) alternate titles: coin-machine operator; coin teller

Sorts, counts, and wraps coins, using various machines: Sorts coins according o denomination, using coin-separating machine. Removes counterfeit and muti-ated coins. Feeds coins into hopper of counting machine that counts and bags hem. Removes, seals, and weighs bags of counted coins. Wraps coins, using oin-wrapping machine, and places rolls of coins into bags or boxes for dis-ribution. Records machine totals, shortages or overages, and kind and value of oins removed from circulation. Verifies totals against deposit slips or other locuments and prepares coins for shipment. May sort, count, and wrap paper noney by hand or machine [CURRENCY SORTER (financial) 217.485-010].
GOE: 05.12.19 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 89

219 COMPUTING AND ACCOUNT-RECORDING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with ystemizing information about transactions and activities into accounts and uantitative records, and paying and receiving money.

19.132-010 SUPERVISOR, POLICY-CHANGE CLERKS (insurance) alternate titles: supervisor, records change

Supervises and coordinates activities of workers engaged in compiling data n changes to insurance policies in force, changing provisions of policies to onform to insured's specifications, and computing premium rates based on hanges to policies: Reviews correspondence from insured or agents requesting olicy changes to determine work assignments based on types of changes re-uested. Assigns duties to POLICY-CHANGE CLERKS (insurance) 219.362-42; POLICY-VALUE CALCULATORS (insurance) 216.382-050; POLICY-IOLDER-INFORMATION CLERKS (insurance) 249.262-010, and related lerical workers. Interprets policy provisions to workers, as needed, to assist orkers in effecting changes according to company regulations. Assists workers n locating and changing policy information, using computer. Verifies accuracy f premium computations, using calculator. Performs other duties as described nder SUPERVISOR (clerical) Master Title.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 78

19.132-014 SUPERVISOR, TRUST ACCOUNTS (financial)

Supervises and coordinates activities of workers engaged in processing settle-nent of cash or securities transactions for trust-account customers in trust divi-ion of commercial bank: Reviews debit and credit entries to customer trust ac-ounts pertaining to cash or securities transactions to determine whether funds vere received or disbursed according to predetermined schedules, trust or in-estment-department instructions, or instructions on customer account records, sing computer terminal and computer printouts. Assists workers with more dif-icult aspects of preparing records and transmittal documents for transactions nvolving purchase or sale of customer assets, recording interest and balance n contracts and notes, recording stock dividends, and placing insurance for ustomer property held in trust. Trains new workers. Performs other duties as escribed under SUPERVISOR (clerical) Master Title. May be designated ac-ording to specialized area of work as Securities Supervisor (financial).
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 89

19.132-022 SUPERVISOR, UNDERWRITING CLERKS (insurance) alternate titles: policy-issue supervisor

Supervises and coordinates activities of workers engaged in computing pre-iums, recording, and issuing insurance policies following acceptance of insur-nce applications by underwriting department. Performs duties as described nder SUPERVISOR (clerical) Master Title.
OE: 07.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

19.137-010 FIELD CASHIER (construction)

Supervises and coordinates activities of clerical workers in field office of onstruction project, engaged in performing such office work as compiling and istributing payrolls, keeping inventories, compiling cost data, and keeping ac-ount books. Performs duties as described under SUPERVISOR (clerical) Mas-r Title.
OE: 07.02.02 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

19.267-010 HANDICAPPER, HARNESS RACING (amuse. & rec.)

Determines winning odds on each horse of each race of harness-racing pro-ram by analyzing data, such as horses' and drivers' past performances, post osition, and race distance, for use in racing publications: Reviews data on each orse entered in same race, such as past performance, assigned-racing classi-cation, and race distance and reviews past performance of assigned drivers, nd analyzes compiled data to estimate probable order of finish for each horse each race. Assigns winning odds to horses by using estimated order of finish nd standard-odds ratios, occasionally making adjustments of winning odds as ictated by judgment. Determines winning odds on horses in maiden races, ased on breeding and qualifying-times data. Mails or telephones opening or evised winning odds to printers of racing programs and other harness-race pub-cations.
OE: 11.06.03 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 77

19.362-010 ADMINISTRATIVE CLERK (clerical) alternate titles: clerk, general office

Compiles and maintains records of business transactions and office activities f establishment, performing variety of following or similar clerical duties and utilizing knowledge of systems or procedures: Copies data and compiles records and reports. Tabulates and posts data in record books. Computes wages, taxes, premiums, commissions, and payments. Records orders for merchandise or service. Gives information to and interviews customers, claimants, employees, and sales personnel. Receives, counts, and pays out cash. Prepares, issues, and sends out receipts, bills, policies, invoices, statements, and checks. Prepares stock inventory. Adjusts complaints. Operates office machines, such as typewriter, adding, calculating, and duplicating machines. Opens and routes incoming mail, answers correspondence, and prepares outgoing mail. May take dictation. May greet and assist visitors. May prepare payroll. May keep books. May purchase supplies. May operate computer terminal to input and retrieve data. May be designated according to field of activity or according to location of employment as Adjustment Clerk (retail trade; tel. & tel.); Airport Clerk (air trans.); Colliery Clerk (mine & quarry); Death-Claim Clerk (insurance); Field Clerk (clerical). May be designated: Agency Clerk (insurance); Auction Clerk (clerical); Construction-Records Clerk (construction; utilities); Shop Clerk (clerical).
GOE: 07.01.02 STRENGTH: L GED: R4 M3 L3 SVP: 4 DLU: 88

219.362-014 ATTENDANCE CLERK (education)

Compiles attendance records for school district, issues attendance permits, and answers inquiries: Obtains district attendance figures from each school daily, using telephone. Records figures by grade level and for special classes, such as mentally retarded or gifted, in workbook. Totals figures, using calculator. Collates data and prepares standard state reports, using typewriter. Computes average daily attendance figures and forwards to state for compensation and to school cafeteria for meal planning. Interviews applicants for interdistrict attendance permits to attend elementary and secondary schools in district and issues permits, if requirements are met. Sends copy of permit to applicable school and retains file copy. Maintains file of interdistrict attendance agreements, bills outside districts for attendance within district, and notifies supervisor of agreement expirations. Answers inquiries from parents and school officials, using state education code as guide. Prepares special reports, such as ethnic or racial-distribution surveys, requested by state or district education officials.
GOE: 07.05.03 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

219.362-018 BROKERAGE CLERK II (financial)

Compiles security purchases and sales made for client and records information in journal. Totals daily transactions, using calculator, and summarizes effects on customers' accounts and earnings of REGISTERED REPRESENTATIVE (financial) 250.257-018. Calls customers to inform them of market fluctuations and purchase and sale of securities affecting their accounts.
GOE: 07.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

219.362-022 CLERK, TELEGRAPH SERVICE (tel. & tel.) alternate titles: clerk, personal service bureau; clerk, private wire-billing and control

Compiles and maintains statistical records relating to telegraph services, performing any combination of following duties: Answers telephone requests from private wire or tie-line patrons regarding handling of messages and repair service. Writes and issues work orders for equipment installation or repair. Compiles statistical data concerning pricing and telegraph services for use in preparing studies and proposals. Verifies accuracy of billing charges. Posts charges to service accounts. Posts revenue received from charge accounts and other sales data to card index files. Writes or types statements. Sorts and distributes mail. Takes and transcribes dictation. Types letters, reports, and proposals. Files records and correspondence.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

219.362-026 CONTRACT CLERK, AUTOMOBILE (retail trade)

Verifies accuracy of automobile sales contracts: Calculates tax, transfer and license fees, insurance premiums, and interest rates, using tables, schedules, and calculating machine. Verifies amount and number of payments, trade-in allowance, and total price of automobile. Interviews customer to obtain additional information and explain terms of contract. Corresponds with motor vehicle agencies to clear automobile titles. Obtains license, signs registration documents on cars traded in, and transfers titles on cars sold. Keeps file of sales contracts.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

219.362-030 EXTENSION CLERK (utilities)

Processes requisitions for gas main or electric-power line extensions and keeps control records to report and coordinate construction activities between utility and contractors: Compiles information required for preparation of line- or main-extension contracts from construction sketches. Computes or verifies charges for customer. Reviews completed contracts and construction work orders for completeness and accuracy. Annotates subdivision plat books (maps) to indicate location and nature of construction shown on work order. Compiles reports from extension requisitions and work orders. Receives orders from customers by telephone and in person for services requiring extensions in main or distribution lines.
GOE: 07.05.03 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

219.362-038 MORTGAGE-CLOSING CLERK (clerical) alternate titles: loan closer

Completes mortgage transactions between loan establishment, sellers, and borrowers after loans have been approved: Verifies completeness of data on loan papers. Answers questions of buyers and sellers relating to details of trans-

action and obtains signatures of principal parties on necessary documents. Closes out seller's interest in property by presenting seller with check to cover seller's equity. Operates office machines to compute rebates or adjustments. Prepares and mails rebates and other papers to clients.
GOE: 07.05.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

219.362-042 POLICY-CHANGE CLERK (insurance)
Compiles data and records changes in insurance policies: Examines letter from insured or agent, original application, and other company documents to determine how to effect proposed changes, such as change in beneficiary or method of payment, increase in principal sum or type of insurance. Corresponds with insured or agent to obtain supplemental information or to explain how change would not conform to company regulations or state laws, or routes file to POLICYHOLDER-INFORMATION CLERK (insurance) 249.262-010. Calculates premium, commission adjustments, and new reserve requirements, using rate books, statistical tables, and calculator or computer, and knowledge of specific types of policies. Transcribes data to abstract (work sheet) or enters data into computer for use in preparing documents and adjusting accounts. May write abstract or enter data into computer to prepare new policy or rider to existing policy. May underwrite changes when increase in amount of risk occurs.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 78

219.362-046 REAL-ESTATE CLERK (real estate)
Maintains records concerned with rental, sale, and management of real estate, performing any combination of following duties: Types copies of listings of real estate rentals and sales for distribution to trade publications, and for use as reference data by other departments. Computes interest owed, penalty payment, amount of principal, and taxes due on mortgage loans, using calculating machine. Holds in escrow collateral posted to ensure fulfillment of contracts in transferring real estate and property titles. Checks due notices on taxes and renewal dates of insurance and mortgage loans to take follow-up action. Sends out rent notices to tenants. Writes checks in payment of bills due, keeps record of disbursements, and examines cancelled returned checks for endorsement. Secures estimates from contractors for building repairs. May compile list of prospects from leads in newspapers and trade periodicals to locate prospective purchasers of real estate. May open, sort, and distribute mail. May submit photographs and descriptions of property to newspaper for publication. May maintain and balance bank accounts for sales transactions and operating expenses. May maintain log of sales and commissions received by SALES AGENT, REAL ESTATE (real estate) 250.357-018. May scan records and files to identify dates requiring administrative action, such as insurance premium due dates, tax due notices, and lease expiration dates. May compose and prepare routine correspondence, rental notices, letters, and material for advertisement.
GOE: 07.01.04 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 88

219.362-050 REVIVAL CLERK (insurance) alternate titles: reinstatement clerk
Compiles data on lapsed insurance policies to determine automatic reinstatement according to company policies: Determines if overdue premium is received within specified time limit. Compares answers given by insured on reinstatement application with those approved by company and examines company records to determine if there are circumstances which may make reinstatement impossible. Approves reinstatement when criteria for automatic reinstatement are met. Calculates irregular premium and reinstatement penalty due when reinstatement is approved. Types notices of reinstatement approval or denial, and of payment due, and sends notices to insured.
GOE: 07.05.02 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

219.362-054 SECURITIES CLERK (financial)
Records security transactions, such as purchases and sales, stock dividends and splits, conversions, and redemptions: Issues receipts for securities received from customers. Prepares transmittal papers or endorsements for securities sold to ensure payment, transfer, and delivery. Issues vault withdrawal orders at customer request. Computes dividends to be disbursed to customers. Writes letters to customers to answer inquiries on security transactions. May prepare reports on individual customer accounts.
GOE: 07.01.04 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 89

219.362-066 VOUCHER CLERK (r.r. trans.) alternate titles: claims clerk
Compiles data to prorate cost of lost or damaged goods among interline railroad carriers: Receives claim for lost or damaged goods filed by shipper of consignee. Verifies records to substantiate claim of shipment and requests CUSTOMER-COMPLAINT CLERK (clerical) to investigate claim and to submit estimate of value of lost or damaged goods. Receives estimate and verifies records to ascertain names of carriers involved in transporting goods. Computes number of miles each carrier transported goods. Prorates and computes cost to be charged to interline carriers according to comparative mileage in transit over each railroad, using calculating machine. Records name of each interline carrier involved and amount prorated to each.
GOE: 07.02.04 STRENGTH: S GED: R4 M4 L3 SVP: 4 DLU: 77

219.362-070 TAX PREPARER (business ser.) alternate titles: income-tax-return preparer; tax form preparer
Prepares income tax return forms for individuals and small businesses: Reviews financial records, such as prior tax return forms, income statements, and documentation of expenditures to determine forms needed to prepare return. Interviews client to obtain additional information on taxable income and deductible expenses and allowances. Computes taxes owed, using adding machine, and completes entries on forms, following tax form instructions and tax tables. Consults tax law handbooks or bulletins to determine procedure for preparation of atypical returns. Occasionally verifies totals on forms prepared by others to detect errors of arithmetic or procedure. Calculates form preparation fee according to complexity of return and amount of time required to prepare forms.
GOE: 07.02.02 STRENGTH: S GED: R4 M4 L3 SVP: 4 DLU: 86

219.362-074 TRUST OPERATIONS ASSISTANT (financial)
Opens and closes trust accounts; arranges transfer of trust assets; updates trust account records; pays bills, dividends, and interest; and performs clerical duties in personal or corporate trust department: Compiles, records, and enters names and addresses, description of assets, and other information, or deletes information previously entered, to open or close trust account, using computer. Calls or writes holders of assets, trust customer, stock transfer company, and other parties, and transmits specified documents to arrange for transfer of securities and other trust assets to or from trust account. Documents funds received or disbursed and updates records. Prepares and mails checks, or enters commands to generate checks, to pay bills for personal trust customers, disburse loan proceeds, and remit dividends, interest, and other funds to recipients. Composes and types business letters, using computer or typewriter. Opens mail and answers telephone. May call investment department to obtain information on investments and market conditions requested by trust customer. May place customer order for purchase or sale of investment with establishment investment department.
GOE: 07.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 89

219.367-010 CHECKER, DUMP GROUNDS (business ser.)
Estimates size of load on truck entering dump grounds. Collects fees based on size of load and type of material dumped. Keeps record of truckloads and money received. Directs truck drivers to designated dumping areas. May weigh truck, using scale, to determine amount of load.
GOE: 05.09.03 STRENGTH: L GED: R3 M3 L2 SVP: 3 DLU: 77

219.367-014 INSURANCE CLERK (financial; insurance)
Orders insurance policies to ensure coverage for property owned by establishment and for property held as security for loan: Reviews premium notices from insurance companies for property owned by establishment. Types check or voucher requesting payment of premium. Reviews notification from insurance companies of lapse in premium paid by customer for loan collateral, such as real estate, automobile, aircraft, or boat. Orders payment of premium and notifies customer of delinquency in premium. Arranges for renewal, transfer or cancellation of insurance coverage. Records dates of insurance expiration and cancellation, using computer.
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 78

219.367-018 MERCHANDISE DISTRIBUTOR (retail trade)
Compiles reports of stock on hand and kind and amount sold: Dispatches inventory data to units of retail chain. Routes merchandise from one branch store to another on the basis of sales. Usually specializes in one type of merchandise, such as dresses, sportswear, or lingerie. May give directions to one or more workers.
GOE: 07.05.04 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

219.367-022 PAPER-CONTROL CLERK (water trans.)
Prepares control form of space available for cargo in company's ships scheduled for loading: Records onto control sheet previous day's bookings by ship and type of cargo. Calculates remaining space available, according to type of space, such as refrigeration, container, and general cargo.
GOE: 07.02.03 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

219.367-030 SHIPPING-ORDER CLERK (clerical)
Requisitions transportation from freight carriers to ship plant products: Reads shipping orders to determine quantity and type of transportation needed. Contacts carrier representative to make arrangements and to issue instructions for loading products. Annotates shipping orders to inform shipping department of loading location and time of arrival of transportation. May perform other clerical tasks, such as typing and mailing bills, typing correspondence, and keeping files.
GOE: 07.05.04 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

219.367-038 UNDERWRITING CLERK (insurance) alternate titles: underwriting analyst
Compiles data and performs routine clerical tasks to relieve UNDERWRITER (insurance) of minor administrative detail, using knowledge of underwriting and policy issuing procedures: Reviews correspondence, records, and reports to select routine matters for processing. Routes risk-involved matters to UNDERWRITER (insurance) for evaluation. Prepares requisitions for and reviews credit and motor vehicle reports and results of investigations to compile and summarize pertinent data onto underwriting worksheets. Consults manuals to determine rate classifications and assigns rates to pending applications, using adding machine. Corresponds with or telephones field personnel to inform them of underwriting actions taken. Maintains related files.
GOE: 07.01.04 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

219.367-042 CANCELING AND CUTTING CONTROL CLERK (financial)
Verifies amount and denominations of worn or mutilated currency for canceling and cutting in unit of Federal Reserve Bank: Counts amounts and denominations of worn or mutilated currency, using automatic counting machine.

Verifies entries on delivery and debit tickets. Records amounts, denominations, and types (notes, certificates, old series) of currency processed and shipped for destruction. Totals figures daily in ledger to prove transactions, using adding machine or calculator. Oversees canceling and cutting operations to ensure custody of currency during operations. Notifies U.S. Treasury Department of daily disposition of specified categories of currency. Compiles and prepares statistical reports.
GOE: 07.03.01 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 86

219.367-046 DISBURSEMENT CLERK (financial)
Verifies accuracy of consumer loan applications and records loan: Compares original application against credit report. Types checks for approved loans. Prepares loan work sheet, insurance record, credit report, and application copy for each loan. Records loan and types daily report of loan transactions, using computer. Prepares payment book and mails payment book to customer. Answers customer's question, such as current rates and date loan checks were issued.
GOE: 07.05.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 86

219.367-050 LETTER-OF-CREDIT CLERK (financial)
Issues import and export letters of credit and accepts payments: Notifies exporters and importers of issuance of letters of credit covering shipment of merchandise. Reviews letter of credit documents to determine compliance with international standards. Verifies terms of credit, such as amount, insurance coverage, and shipping conditions to determine compliance with established standards. Coordinates customer credit information and collateral papers with LOAN OFFICER (financial) 186.267-018 to comply with bank credit standards. Types letters of credit and related documents, using typewriter or computer. Records payments and liabilities and other customer account information, using computer. May translate correspondence into English or foreign language.
GOE: 07.05.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 89

219.382-010 CHECK WRITER (retail trade)
Imprints payment data on checks, records payment details on check register, using checkwriting machine, and compiles summaries of daily disbursements: Receives checks and vouchers authorized for payment, selects specified check register form, and inserts form into checkwriting-machine slot. Depresses buttons to transcribe payment data from voucher into machine. Inserts blank check into additional slot and presses bar to imprint details on check register and check. Removes check and repeats procedure to process batch of checks. Turns key to release signature plate and removes plate when processing checks totalling more than designated amount and sets such checks aside for handwritten signature by authorized personnel. Pulls lever to clear machine and print total on individual register. Compares register total with total on adding-machine tape to verify accuracy of register totals. Corrects errors or returns vouchers to other personnel for correction. Compiles daily summary of payment amounts by bank, merchandise, and expense categories and totals amounts, using adding machine.
GOE: 07.06.02 STRENGTH: S GED: R4 M4 L2 SVP: 3 DLU: 77

219.387-010 ASSIGNMENT CLERK (tel. & tel.) alternate titles: clerk, cable transfer
Compiles records and authorizations to facilitate installation or rewiring of telephone or telegraph lines resulting from subscribers' address changes or other changes in service: Selects, assigns, and posts cable-assignment data and telephone numbers on service orders. Routes orders to service department, information operators, and directory-compilation personnel for action. Reviews completed disconnection orders to update cable-assignment records. Prepares statistical reports and assembles data for subscriber-analysis studies, as directed. May request field investigation by FACILITY EXAMINER (tel. & tel.) where records do not indicate available facilities for subscriber service.
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

219.387-014 INSURANCE CLERK (clerical)
Compiles records of insurance policies covering risks to property and equipment of industrial organization: Files records of insurance transactions and keeps calendar of premiums due and expiration dates of policies. Prepares vouchers for payment of premiums and verifies that payments have been made. Fills in data on renewal policy applications and forwards applications to insurance company. Compiles statistical data for reports to insurance company and departments in organization. May notify insurance company of changes in property or equipment affecting insurance coverage. May type amortization schedules.
GOE: 07.05.03 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 77

219.387-022 PLANIMETER OPERATOR (government ser.)
Traces boundary lines of land plots on aerial photographs to determine acreage, using planimeter: Centers *tracer point* of planimeter arm on plot to be measured and places pivot arm at right angle to tracer point. Moves tracer point to starting point on photograph according to shape of area to be measured and traces boundary until point of beginning is reached. Records figures shown on dial and measuring wheels of planimeter at beginning and ending of tracing and subtracts figures from each other to determine acreage.
GOE: 07.07.03 STRENGTH: S GED: R3 M2 L1 SVP: 3 DLU: 77

219.387-026 SPACE-AND-STORAGE CLERK (ordnance)
Keeps records of weights and amounts of ammunition and components stored in magazines (storage areas) of arsenal: Posts ledger showing gross weights and amounts of each type of ammunition on hand according to information contained in receiving, shipping, and transfer reports. Keeps charts of floor plan of magazines, indicating utilization of space and type of ammunition stored, according to reports on movement of stores. Compiles periodic reports on amounts of each type of ammunition on hand and floor space available for each type (dangerous explosives are segregated).
GOE: 07.05.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

219.387-030 STOCK CONTROL CLERK (clerical) alternate titles: inventory clerk; inventory control clerk; stock order lister
Performs any combination of following tasks to compile records concerned with ordering, receiving, storing, issuing, and shipping materials, supplies, and equipment: Compiles data from sources, such as contracts, purchase orders, invoices, requisitions, and accounting reports and writes, types, or enters information into computer to maintain inventory, purchasing, shipping, or other records. Keeps back order file in established sequence and releases back orders for issue or shipment as stock becomes available. Compiles stock control records and information, such as consumption rate, characteristics of items in storage, and current market conditions, to determine stock supply and need for replenishment. Prepares requisitions, orders, or other documents for purchasing or requisitioning new or additional stock items. Compares nomenclature, stock numbers, authorized substitutes, and other listed information with catalogs, manuals, parts lists, and similar references to verify accuracy of requisitions and shipping orders. Reviews files to determine unused items and recommends disposal of excess stock.
GOE: 07.05.03 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 87

219.462-010 COUPON CLERK (financial)
Receives matured bond coupons from bank departments, local banks, and customers to effect collection on cash basis, or for payment when future collection is made: Examines coupons presented for payment to verify issue, payment date, and amount due. Enters credit in customer's passbook or into computer system, for coupons accepted for payment. Liquidates collection payment by debiting and crediting accounts. Issues checks to bond owners in settlement of transactions. Totals and proves daily transactions, using adding machine or calculator. Composes, types, and mails correspondence relating to discrepancies, errors, and outstanding unpaid items. Totals outstanding unpaid cash coupons, using adding machine or calculator, and records amounts in ledgers or into computer system.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

219.462-014 TRAIN CLERK (r.r. trans.) alternate titles: schedule clerk
Records time each train arrives and departs from station or terminal: Records number of train, engine, and exact time train departs or arrives. Compares time of arrival or departure with train schedules to ascertain number of minutes train was off schedule. Ascertains from train crew or YARD MANAGER (r.r. trans.) reasons or causes for delays. Transmits train-movement data to electronic data processing system, using on-line console or telegraphic typewriter. May type operating information, such as switching lists and personnel assignments, according to instructions from YARD MANAGER (r.r. trans.).
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

219.467-010 GRADING CLERK (education) alternate titles: grade recorder; test clerk
Scores objective-type examination papers and computes and records test grades and averages of students in school or college: Grades papers, using electric marking machine. Totals errors found and computes and records percentage grade on student's grade card. Averages test grades to compute student's grade for course. May use weight factors in computing test grades and arriving at final averages.
GOE: 07.02.03 STRENGTH: S GED: R4 M3 L3 SVP: 3 DLU: 77

219.482-010 BROKERAGE CLERK I (financial)
Records purchase and sale of securities, such as stocks and bonds, for investment firm: Computes federal and state transfer taxes and commissions, using calculator and rate tables. Verifies information, such as owners' names, transaction dates, and distribution instructions, on securities certificates to ensure accuracy and comformance with government regulations. Posts transaction data to accounting ledgers and certificate records. Types data on confirmation form to effect transfer of securities purchased and sold. Receives securities and cash and schedules delivery of customer securities.
GOE: 07.02.02 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

219.482-014 INSURANCE CHECKER (insurance)
Verifies accuracy of insurance company records, performing any combination of following duties: Compares computations on premiums paid, interest, and dividends due with same data on other records. Verifies data on applications and policies, such as age, name, and address, principal sums, and value of property. Proofreads printed material concerning insurance programs. Verifies computations on interest accrued, premiums due, and settlement surrender or loan values, using calculator, manuals, and rate books. May train new employees. May be designated according to data checked as Abstract Checker (insurance); Policy Checker (insurance).
GOE: 07.05.02 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 78

219.482-018 REINSURANCE CLERK (insurance)
Types reinsurance applications and contracts and calculates reinsurance liability, working for either prime insurer or reinsurer and by either of following methods: (1) Calculates reinsurance required on each risk, considering limit of

liability. Selects reinsurers who may accept part of ceded liability. Types applications. Computes amount of each premium due, using calculating machine. Accepts reinsurers and their liability for cash values and dividends. Prepares abstract for typing of contracts. (2) Receives reinsurance application from prime insurer. Determines amount of insurance already held on risk from company records and calculates reinsurance that company can accept, based on limit of liability. Determines if reinsurance is automatic from treaty provisions and sends application to underwriting department when it is not automatic. Types notice of acceptance or rejection, based on limit of liability, and action of UNDERWRITER (insurance). Operates calculator to verify computations made by prime insurer.
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

219.487-010 TAX CLERK (clerical) alternate titles: revenue-stamp clerk
Computes state or federal taxes on sales transactions, production processes, or articles produced, and keeps record of amount due and paid. May affix revenue stamps to tax reports to cover amount of tax due.
GOE: 07.02.04 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

219.587-010 PARIMUTUEL-TICKET CHECKER (amuse. & rec.) alternate titles: ticket counter
Counts and records number of parimutuel tickets cashed at race track to verify records of cashiers. Compares totals with entries on daily balance sheet. Compares each ticket with sample or examines tickets under fluorescent light to verify validity of tickets. Reports discrepancies.
GOE: 07.05.02 STRENGTH: S GED: R3 M3 L3 SVP: 2 DLU: 77

22 PRODUCTION AND STOCK CLERKS AND RELATED OCCUPATIONS

This division includes occupations concerned with compiling and maintaining production records, expediting flow of work and materials, and receiving, storing, shipping, issuing, requisitioning, and accounting for materials and goods.

221 PRODUCTION CLERKS

This group includes occupations concerned with compiling records and reports on various aspects of production, such as materials and parts used, products produced, and frequency of defects; estimating or measuring amount of material needed and computing material and production costs; counting, measuring, or weighing goods produced or material on hand to tally data for production control or payroll purposes; charting production progress; preparing or distributing work tickets, formula cards, or other production guides; scheduling and expediting flow of work and materials for production or repair; coordinating, scheduling or monitoring production, using electronic equipment; and observing production operations to log products produced, materials used, processes completed, and machine and instrument readings. Occupations concerned with preparing payroll and timekeeping records from production data are found in Group 215.

221.132-010 CHIEF CLERK, MEASUREMENT DEPARTMENT (petrol. & gas; pipe lines)
Supervises and coordinates activities of workers engaged in compiling reports concerning quality and quantity of oil or natural gas produced, purchased, transported, and sold: Directs clerks in compiling of production and sales reports, purchase orders, and transportation records. Oversees consolidation of data used to determine heating quality of natural gas. Directs clerks in compiling production records and other reports. Calculates factors used to compute petroleum or gas volumes transported by pipelines, using adding machine or calculator. Performs duties as described under SUPERVISOR (clerical) Master Title. May direct CHART CLERKS (clerical) in compiling data relating to volume of petroleum or gas products passing specified points on pipeline system and be designated Chart Clerk, Chief (clerical).
GOE: 07.02.03 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

221.137-010 CONTROL CLERK, HEAD (clock & watch)
Supervises and coordinates activities of CONTROL CLERKS (clock & watch) engaged in distributing material to workers and keeping records of parts worked on and completed: Keeps perpetual inventory of watches in department. Totals hours worked by subordinates for payroll purposes. Issues work tickets. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

221.137-014 SUPERVISOR, PRODUCTION CLERKS (clerical)
Supervises and coordinates activities of PRODUCTION CLERKS (clerical) engaged in keeping records and preparing statistical statements and reports on production of manufactured goods, consumption of raw materials, and other production data, performing duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.02.03 STRENGTH: S GED: R4 M4 L4 SVP: 7 DLU: 77

221.137-018 SUPERVISOR, PRODUCTION CONTROL (clerical)
Supervises and coordinates activities of MATERIAL COORDINATORS (clerical) engaged in expediting flow of material, parts, and assemblies within or between departments of industrial plant, and of PRODUCTION COORDINATORS (clerical) engaged in scheduling production operations: Evaluates written data, such as job orders, product specifications and operations sheets, parts and materials inventory lists, and machine and worker production rates, to establish efficient allocation and scheduling of parts, materials, machines, and sequences of operations and workflow. Confers with production personnel to resolve problems affecting production schedules. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

221.162-010 PRODUCTION SCHEDULER, PAPERBOARD PRODUCTS (paper goods) alternate titles: production clerk; production planner; scheduler
Prepares production schedules and miscellaneous reports for manufacturing such paperboard products as corrugated and folded cartons, boxes, and containers: Examines blueprint or drawings to determine type and quantity of material and equipment required to manufacture number of containers specified. Confers with production personnel to clarify processing methods or establish sequence of operations. Prepares production schedules, issues work orders, and keeps progress records [PRODUCTION CLERK (clerical)]. Calculates unit and job-lot manufacturing costs of containers, based on size and type, and involving such factors as labor, material, handling, and shipping costs.
GOE: 05.03.03 STRENGTH: S GED: R4 M4 L4 SVP: 6 DLU: 77

221.167-010 COPY CUTTER (print. & pub.)
Coordinates activities of workers engaged in setting of copy into type: Examines, apportions, and distributes editorial and classified advertising copy to COMPOSITORS (print. & pub.); LINOTYPE OPERATORS (print. & pub.); or MONOTYPE-KEYBOARD OPERATORS (machinery mfg.; print. & pub.). Examines copy to determine time and date for publication, type style, and size specified for headings and body. Determines size of sections to be cut and distributed, according to time available for setting type. Cuts copy into sections, marks sections with type size if cuts are to be used, and distributes to composing room. May mark sections to aid in assembling type and cuts in galley.
GOE: 05.10.05 STRENGTH: S GED: R4 M3 L3 SVP: 8 DLU: 77

221.167-014 MATERIAL COORDINATOR (clerical) alternate titles: material control expediter; production control scheduler
Coordinates and expedites flow of materials, parts, and assemblies between sections or departments, according to production and shipping schedules or department priorities, and compiles and maintains manual or computerized records: Reviews production schedules and related information and confers with department supervisors to determine material requirements to identify overdue materials and to track material. Requisitions material and establishes sequential delivery dates to departments, according to job order priorities and material availability. Examines material delivered to production departments to verify conformance to specifications. Arranges in-plant transfer of materials to meet production schedules. Computes amount of material required to complete job orders, applying knowledge of product and manufacturing processes. Compiles and maintains manual or computerized records, such as material inventory, in-process production reports, and status and location of materials. May move or transport materials from one department to another, manually or using material handling equipment. May arrange for repair and assembly of material or part. May monitor and control movement of material and parts on automated conveyor system.
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 90

221.167-018 PRODUCTION COORDINATOR (clerical) alternate titles: production controller; production expediter; production scheduler; progress clerk; schedule clerk; scheduler
Schedules and coordinates flow of work within or between departments of manufacturing plant to expedite production: Reviews master production schedule and work orders, establishes priorities for specific customer orders, and revises schedule according to work order specifications, established priorities, and availability or capability of workers, parts, material, machines, and equipment. Reschedules identical processes to eliminate duplicate machine setups. Distributes work orders to departments, denoting number, type, and proposed completion date of units to be produced. Confers with department supervisors to determine progress of work and to provide information on changes in processing methods received from methods or engineering departments. Compiles reports concerning progress of work and downtime due to failures of machines and equipment to apprise production planning personnel of production delays. Maintains inventory of materials and parts needed to complete production. May expedite material [MATERIAL COORDINATOR (clerical) 221.167-014]. May expedite production of spare parts and establish delivery dates for spare parts orders and be designated Spares Scheduler (clerical). May coordinate and expedite work in automobile repair and service establishment from control tower, using public address system, and be designated Work Coordinator, Tower Control (automotive ser.). May use computer system to track and locate production units.
GOE: 05.09.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 87

221.167-022 RETORT-LOAD EXPEDITER (wood prod., nec) alternate titles: load tallier
Coordinates tram-car loading activities in wood-preserving plant to expedite movement of wood products into treatment retorts, tallies products loaded to verify against customer orders, and records product-load data for use by processing personnel: Confers with supervisors to determine processing schedule. Determines combinations of orders which can be processed together and number and sizes of tram cars required for each retort charge, according to retort

capacities, wood types, and estimate of product volume. Directs RIGGER (any industry) 921.260-010 and OVERHEAD CRANE OPERATOR (any industry) 921.663-010 in tram-car loading operations. Examines loaded tram cars to verify linkage between cars and determine need for securing load. Counts products in each car by size and wood type and compares total against customer specifications to ensure that orders are complete. Times loading activities for each order and posts time in tally book. Computes displacement (volume in cubic feet) of each retort charge, using calculator, records displacement figure onto record form, and delivers form to TREATING-PLANT SUPERVISOR (wood prod., nec) 561.131-010 to clear load for processing and provide processing data.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

221.167-026 CUSTOMER SERVICES COORDINATOR (print. & pub.)
Coordinates production of printed materials, prepress or printing services with customers' requirements: Confers with customers throughout production to keep them informed of status of job, to solicit and resolve inquiries and complaints, to obtain approval of materials, such as artwork, color separations (film for each primary color), ink samples, and proofs, and to procure information and materials needed by establishment personnel to process order. Determines supplies, materials, and equipment needed for job order, plans and draws layout of job, and routes supplies and materials, such as paste-ups, artwork, copy, film, or prints, to work areas to put job order into production. Monitors progress of job order throughout production, confers with establishment personnel, orders supplies, contracts services with outside vendors, and alters production schedule and job order to expedite timely processing of job in accordance with customers' requirements and company standards.
GOE: 05.09.02 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 89

221.362-010 AIRCRAFT-LOG CLERK (air trans.) alternate titles: aircraft-inspection-record clerk; aircraft-time clerk; equipment scheduler; maintenance-planning clerk
Keeps records of usage and time intervals between inspection and maintenance of designated airplane parts: Compiles data from flight schedules and computes and posts amount of time airplanes and individual parts are in use daily, using calculating machine. Maintains card file for individual parts with notations of time used and facts taken from inspection records. Notifies inspection department when parts and airplanes approach date for inspection, including accummulated time and routing schedule. Records work notations onto inspection report forms, using typewriter. Prepares reports on schedule delays caused by mechanical difficulties to be filed with Federal Aviation Administration. May keep reports on amounts of gasoline used daily. May keep employees' time records [TIMEKEEPER (clerical)].
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

221.362-014 DISPATCHER, RELAY (pipe lines)
Compiles and transmits dispatching information and instructions between central office, pipeline terminals, tank farms, and pumping and compressor stations: Relays messages to stations to direct flow of oil and gas, using PBX switchboard. Transmits, receives, and posts information pertaining to pumping schedules, oil and gas pressures, gauging reports, oil stocks and storage capacities, and physical characteristics of gas and oil in storage and lines, such as temperatures, specific gravities, Btu, and sediment content. Receives, records, and prepares reports of quantities of oil and gas pumped or compressed and received by stations and tank farms. Performs other clerical duties, such as typing reports and records and keeping files. May communicate with field personnel, using radio-telephone equipment.
GOE: 07.04.05 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

221.362-018 ESTIMATOR, PAPERBOARD BOXES (paper goods)
Estimates cost of manufacturing paperboard boxes, according to specifications, blueprints, and diagrams, using tables, charts, and arithmetic calculations: Confers with plant production personnel to select machines for possible use in manufacturing boxes. Reads tables to estimate cost of each production operation. Determines positions of pattern on blank (paperboard sheet) to minimize waste and facilitate operations on machines. Calculates total material to be used and total material cost, using calculator and considering quantity, quality, and style of box, packaging, and delivery rates. Submits total estimate to sales department. May estimate cost of manufacturing boxes made from other types of materials.
GOE: 05.09.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

221.362-022 PROGRESS CLERK (construction)
Records and reports progress of construction work: Reviews information, such as daily record of activities (log), records of materials received and used, and reports from various workers. Prepares and types report. May inspect and measure work completed. May photograph construction work at various stages of completion to report progress pictorially.
GOE: 07.05.03 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

221.362-026 RAILROAD-MAINTENANCE CLERK (r.r. trans.)
Compiles and records information pertaining to track and right-of-way repair and maintenance by railroad section crews, such as materials used, types and locations of repairs made, and hours expended. Types or writes requisitions for materials needed. May keep daily time records [TIMEKEEPER (clerical)] and compile maintenance reports for specific section crew and be designated Road Clerk (r.r. trans.). May compile daily, weekly, and monthly composite reports and be designated Section-Crews-Activities Clerk (r.r. trans.).
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

221.362-030 COMPUTER PROCESSING SCHEDULER (clerical)
Schedules work for computer processing and monitors execution of schedule, using software and computer terminal: Reviews computer processing job requests received from programmers and computer users, and talks with programmers and users to determine processing requirements, such as computer time and memory required, and priority. Develops processing schedule, using computer terminal and job scheduling software. Reviews completed schedule to detect conflicts and ensure availability of memory and other computer resources, using computer terminal. Talks with programmers and users to resolve conflicts in schedule. Enters commands to ensure that new processing jobs do not hinder computer operation, following programmers' specifications. Monitors computer terminal display to detect problem, and to ensure that data entered are correct and that jobs will run as scheduled. Corrects problem, such as failure of program to run, or program running incorrect sequence. May establish guidelines for scheduling work. May train other workers in use of scheduling software.
GOE: 07.05.01 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 90

221.367-010 ALTERATIONS WORKROOM CLERK (retail trade)
Schedules distribution of garments received for alterations within alteration workroom of retail store: Receives garment from sales floor, checks accuracy of entries on sales slip against garment tag, and removes section of tag for record purposes. Segregates garments on racks and distributes work according to nature of alteration and completion date specified on tag. Receives tags from alteration workers upon completion of alterations and matches with tags in file. Transcribes figures from tag to production record of each worker and computes daily and weekly figures, using adding machine. Answers telephone calls from customers regarding status of garments being altered and complaints about unsatisfactory alterations on completed garments.
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

221.367-014 ESTIMATOR, PRINTING (print. & pub.)
Estimates labor and material costs of printing and binding books, pamphlets, periodicals, and other printed matter, based on specifications outlined on sales order or submitted by prospective customer: Examines specifications, sketches, and sample layouts, and calculates unit and production costs, using labor and material pricing schedules, and considering factors such as size and number of sheets or pages, paper stock requirements, binding operations, halftones, number and units of colors, and quality of finished product, to determine cost effective and competitive price. Confers with department heads or production personnel to develop or confirm information regarding various cost elements. May estimate cost of mailing finished printed matter if specified on order. May estimate labor and material cost of specific phase of printing, such as plate making or binding, and be designated according to specialty as Estimator, Printing-Plate-Making (print. & pub.) or Estimator, Binding (print. & pub.).
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 89

221.367-018 FOLLOW-UP CLERK (elec. equip.)
Locates, gathers, and groups, according to specifications, parts required to complete switchgear units at place of installation: Prepares list of parts and materials, such as circuit breakers, transformers, bus-bars, wiring materials, insulation, hardware, paints, and ventilating pipes. Locates parts in plant by consulting production records, supervisors, and production personnel. Gathers parts dismantled from switchgear units. Fills orders for accessory parts from stockroom and withdraws repaired items from repair department. Groups parts according to pattern in which switchgear units are split up for shipment. Tags items with identifying information and routes to inspection and shipping department. Posts information on status of accessory, split, and repair orders in production book.
GOE: 05.09.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

221.367-022 INDUSTRIAL-ORDER CLERK (clerical)
Verifies completion of industrial orders and conformance of product to specifications: Compares blueprints with contract or order to ascertain that product meets engineering specifications. Communicates with customer and delivery personnel to verify delivery of product. Fills out completion slip after order is filled. May route products not meeting specifications to production units for correction.
GOE: 05.09.03 STRENGTH: S GED: R4 M3 L4 SVP: 4 DLU: 77

221.367-026 LINE-UP WORKER (auto. mfg.) alternate titles: scheduler; scheduler, conveyor; transfer and line-up worker
Relays scheduling information to workers on automotive assembly line: Reads production schedule and computer printouts and relays information orally or by written instructions. Verifies conformity of assemblies and parts on conveyor lines with scheduling information. Notifies workers to switch parts and assemblies not in sequence. Enters production data in computer, using keyboard or laser reader.
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 78

221.367-030 LOCOMOTIVE LUBRICATING-SYSTEMS CLERK (r.r. trans.)
Keeps and reviews records and reports pertaining to locomotive lubricating systems and advises railroad repair shops when locomotives require oil change or repair to lubricating systems: Scans incoming reports to identify locomotives with oil contamination. Dials computer dial phone to obtain location of oil-contaminated locomotives. Telephones and directs clerks at reported locations to

notify maintenance personnel to determine contamination causes and make necessary repairs. Requests that locomotives be pushed to nearest repair shops when bad-oil reports indicate need for major repairs. Reviews reports to identify locomotives requiring repeated repairs and advises need for major repairs to prevent possible crankshaft damage. Verifies and records informational data on all repairs. Plots weekly and 10-week-average graphs and prepares reports on locomotives' lubrication oil and lubrication systems. May test locomotive water for chromate contents, using spectrophotometer, and notify repair shops of need for rust or clogging-preventative additives.
GOE: 07.05.01 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

221.367-034 MACHINE-STOPPAGE-FREQUENCY CHECKER (textile) alternate titles: frequency checker; survey hand

Records number and cause of machine stoppage on textile machines, such as looms and spinning frames, for payroll, work assignment, and quality control purposes: Observes machine and questions worker to determine reason for machine stoppage. Records information on forms for analysis by management. May perform quality control tests on samples, such as measuring variations in thickness and testing tensile strength, using testing equipment. May record and total items, such as material and labor costs to determine plant processing costs. May be known as Loom-Stop Checker (textile) when working in weave room. May be known as Ends-Down Checker (textile) when observing spinning or roving frames.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 78

221.367-038 MAINTENANCE DATA ANALYST (military ser.)

Prepares schedules for preventive maintenance of equipment to ensure uninterrupted operation of equipment: Reviews maintenance schedule to determine preventive maintenance to be performed on equipment. Compares maintenance and staff-hour data against monthly maintenance plans, work load estimates, and standards. Calculates amount of human resources required to perform maintenance work. Notifies superiors of maintenance to be performed. Identifies and assists superiors in analysis of material deficiencies, high staff-hour action areas, and trends and deviations from schedules and standards. Prepares inspection tests, repair, modification, alignment service, and load schedules for aircraft, missiles, and machinery. Maintains maintenance index file for individual equipment maintenance.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

221.367-042 MATERIAL EXPEDITER (clerical) alternate titles: expediter; stock chaser

Compiles and maintains material and parts inventory and status information to expedite movement of material and parts between production areas, according to predetermined production schedules and order priorities: Reads production schedules, inventory reports, and work orders to determine type and quantity of materials required, availability of stock, and order priority. Confers with department supervisors to determine overdue material and parts and to inform supervisors of material status. Locates and distributes materials to specified production areas, manually or using handcart, handtruck, or forklift. Records and maintains perpetual inventory of quantity and type of materials and parts received, stocked, and distributed, manually or using computer. Compiles and maintains records, such as material inventory records, production records, and timecards, manually or using computer. May direct INDUSTRIAL-TRUCK OPERATOR (any industry) 921.683-050 or MATERIAL HANDLER (any industry) 929.687-030 to expedite transfer of materials from stock area to production areas. May examine material received, verify part numbers, and check discrepancies, such as damaged or unmarked parts. May compare work ticket specifications to material used at work stations to verify appropriate assignment. May drive truck to outlying work areas to check status of orders or to deliver materials.
GOE: 05.09.02 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 87

221.367-046 MILL RECORDER, COMPUTERIZED MILL (steel & rel.)

Compiles and feeds input data into computer that controls reduction processing of steel slabs on roughing section of hot-strip rolling mill and records mill production and operating data: Reviews rolling schedule to ascertain operational data, such as slab sizes, metallurgical analysis, and rolling sequences. Contacts heating personnel by intercom system to ascertain stock of scheduled slabs and notifies crew of deviations from rolling schedule. Notifies supervisor when data is in computer. Monitors computer readout and adjusts input data according to read failures, data errors, or when notified by heating personnel of out-of-sequence changes, no changes, or runback of slabs due to insufficient rolling temperature. Prepares production and delay reports from data in logs and information received from mill crew.
GOE: 05.03.03 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

221.367-050 RECORDER (steel & rel.)

Records data concerning steel production to ensure that processing procedures are carried out according to specifications: Reads production, heating, or rolling schedule to determine processing specifications. Distributes copies of orders to operating personnel. Observes processing of material; reads gauges, clocks, and automatic recorder; and records and compares information with schedules to ensure compliance with processing specifications. Marks billets (bars) with tags or chalk. Informs supervisor of deviations from processing instructions. Writes reports describing processing delays and deviations. Records steel production information for different types of processes, such as oxygen-furnace pit, open-hearth pit, structural mill, blooming mill, and slabbing mill.
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 79

221.367-054 RELAY-RECORD CLERK (utilities)

Compiles, classifies, and keeps reports and records of tests performed by relay field-test crews and transmits supervisor's instructions to relay test crews of electric power company: Prepares reports and verifies accuracy of data submitted by field-test crews in company plant and substation installations. Prepares reports on maintenance and new-installation tests performed at customer's substation. Classifies, files, and issues blueprints and related documents used on construction work by field-test crews. Verifies accuracy of calculations on test reports, such as power or current transformer ratio, circuit breaker time-performance, and transformer winding resistance, using calculator. Summarizes daily field-test reports and posts data in logbooks. Relays supervisor's instructions to test crews, using communication system.
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

221.367-058 REPRODUCTION ORDER PROCESSOR (clerical)

Reviews request orders for duplication of printed, typed, and handwritten materials and determines appropriate reproduction method, based on knowledge of cost factors and duplicating machines and processes: Reads duplication requests to ascertain number of copies to be made and completion date requested. Confers with order requestor when additional information is necessary to facilitate completion of order. Designates method of duplication, such as photocopying or offset, and routes request orders for processing. Examines completed reproduced material for adherence to order specifications. Keeps files on status of request orders. Keeps supply of standard forms and issues forms as requested.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

221.367-062 SALES CORRESPONDENT (clerical)

Compiles data pertinent to manufacture of special products for customers: Reads correspondence from customers to determine needs of customer not met by standard products. Confers with engineering department to ascertain feasibility of designing special equipment. Confers with production personnel to determine feasibility of fabrication and to obtain estimate of cost and production time. Corresponds with customer to inform of production progress and costs. May specialize in correspondence dealing with customer service agreements and be designated Service Correspondent (clerical).
GOE: 05.09.02 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

221.367-066 SCHEDULER, MAINTENANCE (clerical) alternate titles: dispatcher, maintenance

Schedules repairs and lubrication of motor vehicles for vehicle-maintenance concern or company automotive-service shop: Schedules vehicles for lubrication or repairs based on date of last lubrication and mileage traveled or urgency of repairs. Contacts garage to verify availability of facilities. Notifies parking garage workers to deliver specified vehicles. Maintains file of requests for services.
GOE: 07.05.01 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

221.367-070 SERVICE CLERK (clerical) alternate titles: repair-service clerk; service-order dispatcher

Receives, records, and distributes work orders to service crews upon customers' requests for service on articles or utilities purchased from wholesale or retail establishment or utility company: Records information, such as name, address, article to be repaired, or service to be rendered. Prepares work order and distributes to service crew. Schedules service call and dispatches service crew. Calls or writes customer to ensure satisfactory performance of service. Keeps record of service calls and work orders. May dispatch orders and relay messages and special instructions to mobile crews and other departments, using radio-telephone equipment.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

221.367-078 TRAFFIC CLERK (business ser.)

Compiles schedules and control records on work in process in advertising agency to ensure completion of artwork, copy, and layouts prior to deadline and notifies staff and clients of schedule changes: Keeps schedules and records on work to ensure arrival of printing and artwork, as needed, and to ensure completion of copy. Contacts vendors and notifies agency personnel and clients of changes in schedules.
GOE: 07.05.01 STRENGTH: S GED: R4 M2 L3 SVP: 4 DLU: 77

221.367-082 WORK-ORDER-SORTING CLERK (utilities)

Sorts and routes work orders for construction of gas or electric mains, service connections, or meter installations: Relays work orders, messages and special instructions by telephone or personal notification to service crews. Keeps control register showing number of work orders received and date completed.
GOE: 07.05.04 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

221.367-086 CLERK, TELEVISION PRODUCTION (radio-tv broad.)

Schedules use of facility and equipment and compiles and maintains employee work schedules and equipment and facility usage records for public broadcasting station: Schedules personnel based on written or oral requisition for studio usage, equipment needed for television production, and availability of workers. Compiles leave and vacation schedules. Prepares daily and weekly charts that indicate worker assignment and usage of facilities and equipment. Duplicates charts for distribution to staff, using photocopy machine. Revises schedule charts to accommodate changing priorities and worker absences. Compiles and submits timesheet information to payroll office.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 86

221.367-090 FORMULA CLERK (textile)

Adapts basic dye formulas for use in dyeing goods in accordance with cus-
omer specifications: Reads production orders scheduled for processing to deter-
mine number of pounds of yarn or fabric to be dyed. Reviews basic dye for-
mula developed for dyeing specified customer lot to ascertain weights of dyes
and chemicals used in basic formula. Computes amounts of dyes and chemicals
required to dye specified number of pounds of goods in conformity with cus-
omer specifications, utilizing knowledge of machine capacity, applying mathe-
matical formulas and using calculator. Records lot size and dye machine num-
ber onto adjusted formula and places formula in designated location for use by
dye department personnel. Compiles department production records [PRODUC-
TION CLERK (clerical) 221.382-018].
GOE: 05.09.02 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 86

221.382-010 CHART CLERK (clerical) alternate titles: yield clerk

Performs any combination of following duties to extract statistical data from
charts taken from flowmeters and other measuring and recording devices used
on pipelines: Calculates volume of natural gas, manufactured gas, and petro-
eum handled by specific pipelines, using adding machine, calculator, or pla-
imeter, and meter records of gas pressure, temperature, and specific gravity.
Compiles reports from measurement charts to indicate quantity of gas produced,
ransported, and sold. Posts and files charts.
GOE: 07.02.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

221.382-018 PRODUCTION CLERK (clerical) alternate titles: plant clerk; production checker; production-control clerk; production-posting clerk

Compiles and records production data for industrial establishment to prepare
ecords and reports on volume of production, consumption of raw material,
uality control, and other aspects of production, performing any combination
f following duties: Compiles and records production data from such docu-
nents as customer orders, work tickets, product specifications, and individual-
orker production sheets, following prescribed recordkeeping procedures, using
ypewriter, computer terminal, and writing instruments. Calculates factors, such
s types and quantities of items produced, materials used, amount of scrap, fre-
uency of defects, and worker and department production rates, using adding
achine or calculator. Writes production reports based on data compiled, tab-
lated, and computed, following prescribed formats. Maintains files of docu-
ents used and prepared. Compiles from customer orders and other specifica-
ons detailed production sheet or work tickets for use by production workers
s guides in assembly or manufacture of product [ORDER DETAILER (cleri-
al) 221.387-046]. Prepares written work schedules based on established guide-
nes and priorities. Compiles material inventory records and prepares req-
isitions for procurement of materials and supplies [MATERIAL CLERK (cler-
al) 222.387-034]. Charts production, using wall chart, graph, or pegboard,
ased on statistics compiled, for reference by production and management per-
onnel. Sorts and distributes work tickets or material to workers. May compute
ages from employee timecards and post wage data on records used for prepa-
tion of payroll [PAYROLL CLERK (clerical) 215.382-014]. May be des-
nated according to type of data recorded as Machine-Load Clerk (woodwork-
g); department or division of establishment to which data pertains as Produc-
on Clerk, Lace Tearing (tex. prod., nec); Mill Recorder (nonfer. metal); or
ork aids used as Production Control Pegboard Clerk (garment).
OE: 05.03.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 86

21.382-022 REPAIR-ORDER CLERK (clerical) alternate titles: work-order clerk

Receives interdepartmental work orders for construction or repairs, routes
rk orders to maintenance shop, and compiles cost reports: Files copy of each
rk order received, and routes original copy to maintenance shop. Receives
d files cost reports of work accomplished, and prepares bills to be charged
ainst department requesting construction or repairs. Types cost reports of
rk completed or in progress.
OE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 77

1.382-026 SAMPLE CLERK (furniture)

Operates pantograph, camera, and adding machine in pattern department of
rniture plant to estimate upholstery costs: Places cardboard pattern on
rkbed and plastic sheet on mounting plate of reduction machine. Moves sty-
on tracing arm of pantograph around edge of pattern to control movement
heated cutting needle that cuts reduced plastic pattern of upholstery part. Ar-
ges pattern pieces on scaled table to facilitate maximum fabric usage from
ndard spread of cloth. Operates camera mounted on adjustable stand to pho-
raph pattern layout. Files pattern parts and developed camera print for ref-
nce by other workers. Compiles cutting, sewing, and fabric cost data, using
ling machine, standardized computation sheets and formulas, and pattern lay-
information.
E: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 86

1.387-010 BACK-SHOE WORKER (boot & shoe)

Compiles production records and replaces damaged or missing shoes or shoe
ts to complete departmental order: Records each completed step in shoe as-
ibly by entering identifying number of workers who performed operation.
ts record of shoe shortages caused by damage or lack of material. Com-
tes orders by gathering parts or completed shoes from bins and racks to re-
ce items damaged or lost in processing.
E: 05.09.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

221.387-014 COMPLAINT CLERK (boot & shoe) alternate titles: repair clerk; returns clerk

Examines shoes returned by customers and distributes shoes for repair: Examines shoes to determine repairs required and responsibility for repair charges. Writes work order, specifying repairs to be made. Carries shoes with work orders to worker or department responsible for repair. May contact customers by mail or telephone to give or obtain information regarding complaints and repairs.
GOE: 05.09.02 STRENGTH: L GED: R3 M1 L3 SVP: 4 DLU: 77

221.387-018 CONTROL CLERK (clock & watch) alternate titles: production-control clerk

Keeps record of clock and watch parts being worked on and completed, and distributes material and parts to workers: Requisitions parts, based on production orders, and distributes parts to designated work stations. Moves completed work to next operation to keep workers supplied with material. Keeps records of quantity and type of material received, completed, and being worked on. Determines number of hours worked by employees in department, and collects work tickets from which pay is calculated. May be designated according to section of plant as Control Clerk, Repairs (clock & watch); Control Clerk, Subassembly (clock & watch); Control Clerk, Training And Mechanism (clock & watch).
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

221.387-022 ESTIMATOR, JEWELRY (jewelry-silver.)

Estimates amount of material and labor required to produce particular types of jewelry, utilizing knowledge gained from experience of designs and orders. Keeps record of estimations.
GOE: 05.09.02 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

221.387-026 EXPEDITER CLERK (optical goods)

Keeps production records to ensure that optical goods are delivered as promised: Reads prescription to determine date and time work is needed to meet mail or delivery schedule. Keeps chronological list of due dates for prescriptions. Removes work not meeting production schedule from production line and places at head of line. Records on prescription work order date and time material was delivered or shipped.
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

221.387-030 JACKET PREPARER (print. & pub.)

Prepares jacket (worksheet) for guide in revising customer's printing job order: Compares new order with old one on file and records changes in format, such as size or color of sheet and content of material. Rewrites order listing changes and routes order to production department.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

221.387-034 JOB TRACER (clerical) alternate titles: job checker; job spotter; progress clerk

Locates and determines progress of job orders in various stages of production, such as fabrication, assembly, and inspection, and compiles reports used by scheduling and production personnel.
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

221.387-038 LAUNDRY CLERK (clerical) alternate titles: floor clerk

Compiles and maintains work-production records of each employee for use in payroll and efficiency records. Frequently performs other clerical duties, such as recording weights of laundry bundles. May convert count of each type of garment to production points achieved, following prepared charts or verbal instructions.
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

221.387-042 MELTER CLERK (foundry) alternate titles: weight-and-test-bar clerk

Records heat (crucible) numbers, composition of alloys, and identification of castings poured from each heat. Calculates amount of each metal for alloys according to standard formula. May stamp heat number on metal tags, using hand-operated press. May insert end of tag wire into metal to identify each casting.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

221.387-046 ORDER DETAILER (clerical) alternate titles: job-order clerk; ticketer; work-order detailer

Compiles purchase orders and product specifications to prepare worksheets used in assembly or manufacture of products: Compares customer purchase order with specifications to determine method of assembly or manufacture and materials needed. Records data, such as quantity, quality, type, and size of material, and expected completion date, on worksheet. Obtains documents, such as assembly instructions and blueprints, from files and attaches to worksheet. Routes worksheet and other assembly documents to specified department. May keep inventory of stock on hand and requisition needed material and supplies. May compile purchase order data, maintain stock and production records, and prepare production worksheets, using computer. May prepare worksheets pertaining to cloth printing and mixing of printing colors and be designated Formula Checker (tex. prod., nec; textile). May prepare worksheets and order steel stock for rolling mill and be designated Provider (steel & rel.). May prepare work order and allocate silicon crystal ingots that meet customer specifications for use in manufacturing semiconductor wafers and be designated Allocations Clerk (electronics). May compile process specification sheets and prepare and issue materials for use in semiconductor crystal growing and be designated Production Material Coordinator (electron. comp.).

GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 89

221.387-050 PRODUCTION ASSISTANT (chemical)
Estimates and orders quantities of raw materials, such as benzene, acetone, and alcohol, used in manufacture of explosives, and schedules their delivery to processing units. Prepares monthly inventory [INVENTORY CLERK (clerical)].
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

221.387-054 BATCH-RECORDS CLERK (plastic prod.)
Compiles and maintains plastic-mixing and ingredient records, and prepares daily mixing instructions for use by MATERIAL MIXERS (plastic prod.) 550.685-130: Compiles and maintains daily mixing and perpetual inventory records from work orders, mixing logs, and formula cards that indicate production information, such as type and quantity of plastic ingredients mixed, ingredient formulas, number of products molded, and identification numbers of molds and molding machines utilized. Copies formula for each plastic mixture from specified formula card onto display card for use by MATERIAL MIXER (plastic prod.). Determines and records amount of plastic mixture required for each molding machine in daily mixing log, based on amount of mixture stored at each machine and knowledge of machine's consumption rate.
GOE: 05.09.02 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 86

221.467-010 GIN CLERK (agriculture) alternate titles: scale clerk
Weighs incoming cotton, computes ginning charges, and records production in cotton ginning establishment: Weighs truck or trailer loaded with cotton and records gross, tare, and net weights. Computes and records quantity of cotton ginned and baled, and records weight of cottonseed removed from cotton. Questions cotton owners to obtain baling and ginning instructions and records instructions on bale tags. Computes and records ginning charges, using rate chart and adding machine. May prepare payrolls and records of payments to growers and quantity of seed cotton received. May prepare cotton-classing samples and mail samples and ginning figures of individual growers to U.S. Department of Agriculture.
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

221.482-010 FABRIC-AND-ACCESSORIES ESTIMATOR (garment)
Computes yardage and determines number of accessories, such as belts, linings, and labels, required in manufacture of women's garments: Reads cutting ticket to determine number of belts, buttons, labels, and amount of lining required for each style garment. Computes number of yards of material used for each style garment to ascertain number of yards per dozen. Types copies of cutting tickets and orders for various dressmaker's supplies. Keeps records of patterns.
GOE: 05.09.02 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 77

221.482-014 LUMBER ESTIMATOR (wood. container) alternate titles: estimator, lumber
Calculates number of board feet of lumber necessary to manufacture boxes and crates of specified size and number: Reviews customer order to determine quantity, size, weight, and shape of product to be packed. Computes number of board feet of lumber needed, using standardized measurement tables, calculator, and adding machine. Submits estimate to be used as basis for determining selling price of boxes or crates.
GOE: 05.09.02 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

221.482-018 TICKET WORKER (tobacco)
Collects weight tickets for leaf tobacco fed onto blending conveyor line during designated intervals. Computes and records total weight blended and percentage of each tobacco grade in blend, using adding machine and grade formulas, to provide production data for use by blending department supervisor. Occasionally performs miscellaneous nonclerical duties, such as feeding tobacco leaves onto conveyors, hand-straightening tobacco leaves, and sweeping floors.
GOE: 05.09.02 STRENGTH: [illegible] GED: R3 M2 L2 SVP: 2 DLU: 77

221.484-010 YARDAGE ESTIMATOR (garment)
Computes amount of [illegible] required to produce specified styles of garments in various sizes: Measures parts of sample garments or paper patterns to determine amount of fabric required to produce particular style of garment. Calculates amount of fabric required to produce specified style of garment in various sizes, using size charts. Positions parts of sample or paper patterns on length of fabric to estimate amount of fabric to be used from bolts for minimization of waste during marking operations. May calculate cost of fabric for specified size and style of garment, based on yardage required and estimated wastage. May cut paper patterns, using shears.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

221.487-010 LUMBER SCALER (woodworking) alternate titles: lumber tallier
Measures width of each board of lumber supplied to plant in stacks (lots) of standard lengths and thicknesses to determine board footage, using *lumber scale*. Tallies footage of each board and computes total footage of stack, using calculator. Records thickness, species, grade, length, and board footage of lumber in each stack.
GOE: 05.09.01 STRENGTH: M GED: R3 M3 L2 SVP: 3 DLU: 77

221.584-010 CHART CHANGER (clerical) alternate titles: chart collector
Changes charts and records data from industrial recording instruments, such as pyrometers and flowmeters: Removes and replaces charts, adjusts recording pen and refills pen with ink, and winds clock springs on mechanical models. Records chart readings and time and date of chart removal. Repairs and adjusts instruments, using handtools. May compare recordings, compute and record average readings, and report discrepancies for use in interpretation of chart data.
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

221.587-010 CHECKER (textile)
Reads tickets attached to bundles of cut or wrapped towels to determine worker identity and weight and style of towels. Counts bundles of wrapped towels or estimates quantity of cut towels in bundle, using conversion char based on weight and style, and records on production sheet quantity of bundles wrapped or towels cut by each worker for use in payroll computation. May loac bundles on handtruck and move to next production area.
GOE: 05.09.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

221.587-014 CHECKER-IN (boot & shoe)
Copies identifying data from work ticket into department record book t record receipt of shoes or parts. May attach colored production route tags ont shoes to indicate specified finishing operation. May peel protective coating from uppers. May hang uppers in muller (humidifier) to soften uppers and record time of storage on work ticket, or hang uppers on storage beams outside humidifier. May tack insoles onto outer soles of shoes, using automatic tacking gun.
GOE: 05.09.03 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

221.587-018 ODD-PIECE CHECKER (knitting) alternate titles: shortag worker
Obtains missing garment parts from stockroom to complete specified lots o knitted garments. Distributes parts to production workers. Records quantity size, and style of parts distributed.
GOE: 05.09.01 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

221.587-022 OUTSOLE SCHEDULER (boot & shoe)
Copies code number from production control book onto work ticket to indicate storage bin location of outsoles for use in casing operations. May prepar outsole requisitions according to inventory records.
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

221.587-026 RECORDER (knitting)
Records on identification tickets yardage, weight, and identity of cloth processed on finishing *range*: Sets yardage meter to zero position prior to eac cloth-lot processing run. Records yardage reading from meter and copies weigh and style and lot numbers from job order onto roll (identification) ticket. Clip roll ticket onto roll of finished cloth. Stops range in event of obvious visibl cloth defects and notifies supervisor. Adjusts and repairs yardage meter, usin handtools.
GOE: 05.09.03 STRENGTH: L GED: R3 M1 L2 SVP: 2 DLU: 77

221.587-030 TALLIER (clerical) alternate titles: checker; counter counter-weigher; scale clerk; weigher; weight clerk
Performs any combination of following duties to tally products or raw materials, such as field crops, fish, livestock, typewriter and watch parts, and stee ingots, received from suppliers or by and from workers, for payroll, payment and production control purposes, using weight scales, counting devices, anc tally sheets: Computes and records totals of tallied figures, using adding machine. Examines and sorts items tallied. Records number and types of defect for quality control purposes. Counts sample quantity of parts onto ratio balanc scale and computes total number of parts. Issues receipts. Moves tallied item to storage, shipping, or production areas, manually or by handtruck. May b required to have weigh master's license. May be designated according to prod uct tallied as Apple Checker (agriculture); Boxcar Weigher (railroad equip. Cotton Weigher (agriculture); Fish Checker (can. & preserv.); Ingot Weighe (steel & rel.); Livestock Counter (agriculture); Lumber Checker (woodworking) Parts Counter-Weigher (clock & watch; electron. comp.; office machines).
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 86

221.587-034 TARE WEIGHER (meat products; sugar & conf.; tobacco)
Weighs sample quantities of product received by establishment for process ing, removes tare (waste), and reweighs and records weight of usable produc for payment or quality control purposes: Selects specified sample of unprocessed product, such as sugar beets, tobacco leaves, and slaughtered poultry weighs sample on scale, and records weight. Washes off, strips, trims, or other wise removes unusable portions of product, such as stems, caked dirt, an spoiled sections. Reweighs sample and records weight. May compute tare i pounds or as percentage of original weight. May prepare and attach weight an identification tickets to product. May send sample to laboratory for analysis.
GOE: 05.09.02 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 78

221.587-038 TICKET SCHEDULER (boot & shoe)
Copies specifications from master schedule (listing of shoe sizes with hee designations) onto work ticket. Batches tickets for delivery to other workers May compute department production and record production data from wor tickets. May sort heel covers.
GOE: 05.09.03 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

221.587-042 WEAVE-DEFECT-CHARTING CLERK (textile)
Plots weaving defects on graph charts to depict frequency and types of defects charged to each textile weaver: Shades chart boxes of bar graph to plo weaving defects for each weaver by type and workshift, using inspection re

ports and colored pencils. Posts charts in weaving room for weavers' reference. Copies data, such as frequency and types of defects, loom numbers, and cloth style from inspection reports onto defect-report form for quality control use.
GOE: 07.07.03 STRENGTH: S GED: R2 M1 L2 SVP: 2 DLU: 77

221.587-046 WHEEL-PRESS CLERK (railroad equip.)
Reads machine pressure readings and wheel and axle serial numbers after each wheel-press operation by WHEEL-PRESS OPERATORS (railroad equip.) and records data on production record form and on masking-tape labels. Applies labels onto axles of completed wheel assemblies to facilitate inspection.
GOE: 05.09.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

221.587-050 YARDAGE-CONTROL CLERK (carpet & rug)
Measures number of skeins of carpet yarn wound onto cardboard cones, using calibrated board. Records amount of yarn and identification of worker who wound cone for quality and production control purposes.
GOE: 05.09.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

221.667-010 WORK-TICKET DISTRIBUTOR (knitting) alternate titles: knitting-order distributor
Distributes workcards that contain instructions, such as type of yarn, type of stitch or stitches, and length and width of tubing, to workers engaged in knitting knit tubing. May file workcards according to knitting machine number and style of cloth.
GOE: 05.09.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

221.687-014 TICKET PULLER (tobacco)
Removes warehouse tickets from baskets or sheets of tobacco on processing floor and compares grades recorded with processor's grade to detect discrepancies in grading and prevent processing of mixed grades. Removes tobacco of questionable grade from processing line or directs MATERIAL HANDLER (any industry) to set basket aside until grade can be ascertained. Writes grade on back of ticket, using felt pen, and carries tickets from each truckload to office for comparison with bill-of-lading. May remove processor's grade ticket and file it with warehouse ticket for production records. May call out grade on sheet of tobacco as it moves along conveyor to facilitate removal by MATERIAL HANDLER (any industry). May attach tickets to full pallet to facilitate bulk feeding process.
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

222 SHIPPING, RECEIVING, STOCK, AND RELATED CLERICAL OCCUPATIONS

This group includes occupations concerned with receiving, storing, shipping, distributing, and issuing supplies, equipment, and merchandise within a stockroom, toolcrib, receiving room, shipping room, freight yard, or warehouse environment, but excludes occupations not requiring direct contact with materials or products involved. This group also includes checking incoming or outgoing shipments by such methods as counting, measuring, and weighing; distributing, issuing and requisitioning items; taking and maintaining inventories; and keeping related clerical records; gathering, sorting, and packing items for shipment; manually addressing and affixing postage to packages; and unpacking and storing incoming shipments. Occupations concerned with adding or removing materials or products to or from containers to achieve specified weight are included in Categories 5 through 9. Occupations concerned with computing and recording data related to shipping, receiving, storing and related activities, but having no direct contact with materials or products involved, are found in Division 20 or 21.

222.137-010 FILM-VAULT SUPERVISOR (motion picture)
Supervises and coordinates activities of workers engaged in receiving, identifying, storing, and issuing motion picture films stored in vaults: Prepares custody cards to record receipt of films. Supervises workers assembling and coding films to be stored in vault. Inspects films being issued to ensure that they are packaged and identified as required. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 05.09.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

222.137-014 LINEN-ROOM SUPERVISOR (laundry & rel.) alternate titles: supervisor, industrial garment
Supervises and coordinates activites of workers engaged in storing linens and wearing apparel, assembling loads for DRIVER, SALES ROUTE (retail trade; wholesale tr.), and maintaining stock in linen supply establishments: Assigns duties to workers. Inventories articles in stock, such as table linens, bed sheets, towels, and uniforms, and confers with SUPERINTENDENT, LAUNDRY (laundry & rel.) to request replacement of articles in short supply. Counts articles in loads for DRIVER, SALES ROUTE (retail trade; wholesale tr.) to ensure agreement with quantity specified on load sheet. Confers with DRIVER, SALES ROUTE (retail trade; wholesale tr.) and with customers to resolve complaints, and to modify orders according to size, color, and type of articles specified. Interviews employees to resolve complaints and grievances. May supervise workers engaged in attaching labels and emblems, repairing, and altering linens and wearing apparel. May purchase linen supplies. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 05.09.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

222.137-018 MAGAZINE SUPERVISOR (chemical; ordnance) alternate titles: ammunition storekeeper; ammunition supervisor
Supervises and coordinates activities of workers engaged in storing, issuing, and accounting for ammunition or explosives, performing duties as described under SUPERVISOR (clerical) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

222.137-022 MAILROOM SUPERVISOR (print. & pub.)
Supervises and coordinates activities of workers engaged in wrapping and addressing printed material, such as periodicals, books, and newspapers, for mailing and dispatching: Revises local, state, and out-of-state mailing lists. Inspects work stations to ensure that material is wrapped and addressed in time to meet scheduled departure of buses, trains, and airlines. Records distribution of material to subscribers and dealers in city, suburban, home, and country divisions, working from shipping and mailing reports. Maintains file of bus, train, and airline schedules and transfer points, and baggage, express, air, or postal mailing rates. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.07.02 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

222.137-026 PETROLEUM-INSPECTOR SUPERVISOR (business ser.)
Supervises and coordinates activities of PETROLEUM INSPECTORS (business ser.) engaged in inspecting petroleum products consigned to clients: Writes consignment order, listing quantity, grade, and kind of petroleum product in consignment. Dispatches workers to inspect products and verify quantities received. Reviews inspection report and laboratory analyses of consignment for conformance to client's specifications. Contacts client and arranges for additional inspections and analyses when variances from contract specifications occur. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 05.07.05 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

222.137-030 SHIPPING-AND-RECEIVING SUPERVISOR (clerical)
Supervises and coordinates activities of workers engaged in verifying and keeping records on incoming and outgoing shipments, and preparing items for shipment: Studies shipping notices, bills of lading, invoices, orders, and other records to determine shipping priorities, work assignments, and shipping methods required to meet shipping and receiving schedules, utilizing knowledge of shipping procedures, routes, and rates. Oversees incoming and outgoing shipping activities to ensure accuracy, completeness, and condition of shipments. Determines space requirements and position of shipment in boxcars and trucks and lays out position of shipment. Determines routing and legal load limits of trucks, according to established schedules and weight limits of states. Inspects loading operations to ensure compliance with shipping specifications, and seals loaded boxcars and truck doors. Inspects material handling equipment for defects and notifies maintenance personnel or contacts outside service facility for repair. Maintains vehicle maintenance report. Directs movement of shipments from shipping and receiving platform to storage and work areas. Compiles records of unfilled orders. Posts weight and shipping charges. Prepares bills of lading. Performs other duties as described under SUPERVISOR (clerical) Master Title. May assist workers in shipping and receiving activities. May be designated according to function supervised as Receiving Supervisor (clerical); Shipping Supervisor (clerical).
GOE: 05.09.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 86

222.137-034 STOCK SUPERVISOR (clerical) alternate titles: manager, stockroom; stockroom supervisor; storeroom supervisor; warehouse supervisor
Supervises and coordinates activities of workers concerned with ordering, receiving, storing, inventorying, issuing, and shipping materials, supplies, tools, equipment, and parts, in stockroom, warehouse, or yard: Plans layout of stockroom, warehouse, and other storage areas, considering turnover, size, weight, and related factors of items stored. Advises employees on care and preservation of items received, stored, and shipped, methods and use of equipment in handling, storing, maintaining, and shipping stock, and related problems. Studies records and recommends remedial actions for reported nonusable, slow-moving, and excess stock. Reviews records for accuracy of information and compliance with established procedures, and to determine adequacy of stock levels. Schedules work for special and periodic inventories. Traces history of items to determine reasons for discrepancies between inventory and stock-control records and recommends remedial actions to resolve discrepancies. Performs other duties as described under SUPERVISOR (clerical) Master Title. May supervise and coordinate activities of workers engaged in handling of merchandise in stockroom or warehouse of retail store and be known as Head of Stock (retail trade).
GOE: 05.09.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 86

222.137-038 STOCK-CONTROL SUPERVISOR (clerical)
Supervises and coordinates activities of STOCK-CONTROL CLERKS (clerical) engaged in keeping records of sales, keeping perpetual inventory or taking periodical physical inventory, and issuing production orders for stock. Performs duties as described under SUPERVISOR (clerical) Master Title. May supervise and coordinate activities of workers engaged in keeping inventory records of equipment and rolling stock and be known as Equipment Records Supervisor (construction).
GOE: 07.05.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

222.137-042 SUPERVISOR, ASSEMBLY STOCK (clerical)
Supervises and coordinates activities of stock control personnel engaged in supplying progressive assembly line, and keeps stock control records: Deter-

mines if parts removed from production departments are to be stored or spotted on assembly line. Assigns duties to stock control personnel, such as INDUSTRIAL-TRUCK OPERATOR (any industry) and STOCK CLERK (clerical), to coordinate movement of parts from production departments or storage areas to assembly line. Keeps records, such as personnel, nonproduction time of lines due to stock difficulties, goods returned to production department or salvage department because of defects, and amount and location of goods in storage. Discusses stock supply or removal requirements with line or department supervisor. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 05.09.02 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

222.137-046 TOOL-CRIB SUPERVISOR (clerical)
Supervises and coordinates activities of TOOL-CRIB ATTENDANTS (clerical) engaged in receiving, storing, and issuing tools and equipment to other workers in industrial establishment and keeping records of same, applying knowledge of types of tools and procedures of tool storage and recordkeeping. Performs other duties as described under SUPERVISOR (clerical) Master Title. May be specified by employer according to experience in particular type of plant or with specific type of tools or equipment.
GOE: 05.09.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

222.137-050 VAULT CASHIER (business ser.) alternate titles: vault supervisor
Supervises and coordinates activities of workers engaged in receiving, processing, routing, and shipping money and other valuables in armored car firm: Prepares route and work schedules. Oversees loading, unloading, and moving of money and other valuables to and from vault. Issues work and route sheets to workers and collects delivery and pickup receipts from guards. Supervises workers preparing payroll envelopes for customers. Observes workers to ensure that security regulations are followed. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.01.04 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

222.167-010 METAL-CONTROL COORDINATOR (nonfer. metal) alternate titles: materials-handling coordinator
Expedites movement of metal stock and supplies used in producing nonferrous metal sheets, bars, tubing, and alloys: Inspects incoming material to ascertain condition, and attaches identification tag to containers or uncrated items. Directs workers weighing or counting metal or supplies, and records amounts received. Directs workers in unloading and storing metal stock and supplies in designated storage areas. Keeps records of materials stored in specific areas. May obtain samples of incoming material and deliver to laboratory for analysis.
GOE: 05.09.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

222.367-010 CARGO CHECKER (water trans.) alternate titles: freight checker; marine clerk
Compiles records of amount, kind, and condition of cargo loaded on or unloaded from ship: Verifies amount of cargo against lists compiled from bills of lading or shipping manifests. Measures and records dimensions of cargo and computes cubic feet required for stowage aboard ship. Records condition of damaged cargo unloaded from ship. May prepare stowage plan showing location of cargo stowed aboard ship or rail car.
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 78

222.367-014 CUT-FILE CLERK (print. & pub.)
Stores, files, and issues advertising and layout cuts, mats, and electrotypes used in newspaper printing: Tags or marks cuts, mats, or plates with identifying information and places them in filing cabinets or cases. Prepares card index for each item filed. Removes requested items from file and records date of removal on file card. Washes plates to remove dirt, ink, and oxides. Applies gum solution to plate surface to protect plate during storage. May discard obsolete materials and records according to established schedule or instructions.
GOE: 05.09.01 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

222.367-018 EXPEDITER (clerical)
Contacts vendors and shippers to ensure that merchandise, supplies, and equipment are forwarded on specified shipping date: Contacts vendor by mail, phone, or visit to verify shipment of goods on specified date. Communicates with transportation company to preclude delays in transit. May arrange for distribution of materials upon arrival. May contact vendors to requisition materials. May inspect products for quality and quantity to ensure adherence to specifications.
GOE: 07.05.01 STRENGTH: S GED: R3 M3 L3 SVP: 6 DLU: 81

222.367-022 EXPRESS CLERK (motor trans.; r.r. trans.)
Receives express consignments (parcels) from customers, computes charges, routes consignment according to destination, and releases consignments to consignee: Weighs parcels received from customer and refers to rate chart to compute charges. Writes receipts and bill of charges, accepts payment, or routes parcel c.o.d. Sorts parcels and places them in bins or sacks according to destination. Releases parcels to consignee upon presentation of written notice or other identification. Answers inquiries regarding shipping policies. May be designated according to type of transportation used as Motor-Express Clerk (motor trans.); Rail-Express Clerk (r.r. trans.).
GOE: 07.03.01 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 77

222.367-026 FILM-OR-TAPE LIBRARIAN (clerical)
Classifies, catalogs, and maintains library of motion picture films, photographic slides, and video and audio tapes: Classifies and catalogs items according to contents and purpose and prepares index cards for file reference. Maintains records of items received, stored, issued, and returned. Stores items and records according to classification and catalog number. Delivers and retrieves items to and from departments by hand or push cart. May prepare, store, and retrieve classification and catalog information, lecture notes, or other documents related to documents stored, using computer. May be designated according to items stored as Audio-Tape Librarian (clerical); Film Librarian (motion picture).
GOE: 11.02.04 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 89

222.367-030 FLOOR-SPACE ALLOCATOR (tobacco; wholesale tr.)
Allocates space on auction warehouse floor and gives directions to workers placing tobacco in warehouse: Ascertains quality of tobacco offered for sale and assigns floor space according to number of baskets. Shows customers space reserved for their tobacco. Directs workers placing tobacco in assigned spaces, and in keeping tobacco in rows. May assist workers in placing tobacco on warehouse floor.
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

222.367-034 LOST-AND-FOUND CLERK (clerical)
Receives and returns to owner articles lost in stores, public conveyances, or buildings, and keeps records of articles lost, found, and claimed: Inspects articles and telephones or sends letters to owners when identification is known. Tags and places articles in drawers, shelves, racks, or safe, according to type of article and where it was found. Discusses lost articles by telephone or in person, and returns articles to owners upon positive identification.
GOE: 07.07.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

222.367-038 MAGAZINE KEEPER (clerical) alternate titles: powder monkey; powder nipper; priller
Stores and issues explosive materials, such as blasting powder, ammonium nitrate, dynamite, fireworks, and munitions, in magazine of explosives or munitions factory, mine, arsenal, or construction project: Records nature and quantity of materials received, shipped, or issued to workers. Enforces observance of safety regulations by persons entering magazine. May direct workers engaged in moving and loading explosives into trucks or boxcars. May thaw frozen explosives. May fill bags, using loading machine. May mix fuel oil with powder to increase combustibility. May assemble fuses and detonators. May insert detonators into sticks of explosives and attach fuse or electric wire to prepare primer charges. May pack and unpack explosives, fireworks, and munitions.
GOE: 05.09.02 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

222.367-042 PARTS CLERK (clerical) alternate titles: shop clerk; spare-parts clerk
Receives, stores, and issues spare and replacement parts, equipment, and expendable items used in repair or maintenance shop. Takes inventory of parts and equipment and maintains inventory records. May drive truck to pick up incoming stock or to pick up and deliver parts to units in other buildings or locations. May sell auto parts to customers. May be designated according to type of parts issued as Parts Clerk, Automobile Repair (clerical); Parts Clerk, Plant Maintenance (clerical).
GOE: 05.09.01 STRENGTH: H GED: R3 M3 L3 SVP: 3 DLU: 80

222.367-046 PETROLEUM INSPECTOR (business ser.)
Inspects consignments of crude or refined petroleum to certify that consignments conform to contract specifications: Lowers container into tank and withdraws samples from top, middle, and bottom of tank. Pours samples into bottles and routes samples to laboratory for analysis. Examines petroleum during transfer into receiving tank for discoloration or water. Sounds shore tank with steel tape and consults calibration tables to determine quantity of consignment. Writes report of findings. May conduct laboratory analyses. May calibrate tanks, meters, and tank cars [TANK CALIBRATOR (business ser.)].
GOE: 05.07.05 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

222.367-050 PRESCRIPTION CLERK, LENS-AND-FRAMES (optical goods)
Selects lens blanks and frames for production of eyeglasses, according to prescription specifications, and keeps stock inventory at specified level: Reads prescription to determine specifications, such as lens power and base curve and frame style and color. Selects lens blanks and frames from stock and routes them with prescription to production section. Requisitions lens blanks and eyeglass frames and communicates by letter and telephone with suppliers to keep stock at specified level. May work with only lenses or frames and be designated Prescription Clerk, Frames (optical goods); Prescription Clerk, Lenses (optical goods).
GOE: 05.09.02 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

222.367-054 PROPERTY CLERK (government ser.) alternate titles: property custodian
Receives, stores, records, and issues money, valuables, and other articles seized as evidence, removed from prisoner, or recovered, lost, or stolen property: Prepares record of articles and valuables received, including description of article, name of owner (if known), name of police officer from whom received, and reason for retention. Issues property being retained as evidence to officer at time of trial upon receipt of authorization. Telephones owners or mails letters to notify owners to claim property, and releases lost or stolen property to owners upon proof of ownership. Returns property to released prisoners. Prepares list of articles required by law to be destroyed and destroys narcotics and drugs (upon authorization) in presence of official witnesses. Sends

alcoholic beverages to state liquor commission. Lists and sends unclaimed or confiscated money to auditor's office. Sends unclaimed and illegal weapons for official destruction. Prepares inventory of unclaimed articles for possible sale at auction or donation to charitable organization.
GOE: 07.05.03 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

222.367-062 TOOL-CRIB ATTENDANT (clerical) alternate titles: tool clerk

Receives, stores, and issues handtools, machine tools, dies, materials, and equipment in industrial establishment: Issues tools and equipment to workers and maintains records of tools and equipment issued and returned, manually or using computer. Locates lost or misplaced tools and equipment. Prepares periodic inventory or maintains perpetual inventory of tools and equipment, manually or using computer. Receives, unpacks, and stores incoming tools and equipment, and requisitions stock to replenish inventory. Inspects and measures tools and equipment for defects and wear, visually or using micrometer, and reports damage or wear to supervisors. Repairs, services, and lubricates tools and equipment, using handtools, spray gun, or pressurized spray can. May deliver tools or equipment to workers, manually or using handtruck. May mark and identify tools and equipment, using identification tag, stamp, or electric marking tool.
GOE: 05.09.01 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 88

222.367-066 TRUCKLOAD CHECKER (construction)

Examines and records materials transported by truck to or from site of exca-ation: Examines load delivered to verify quantity and type of material. Writes icket showing quantity and type of material, truck number, job location, and ime. Reports on amount of materials transported. May signal driver in aligning and spacing loads according to specifications. May hammer stakes in ground o indicate place for unloading of materials.
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

22.367-070 EXPEDITER, SERVICE ORDER (furniture)

Reviews and verifies information on bills of lading to expedite orders and o ensure that customer furniture orders are shipped in accordance with produc-ion and shipping schedules: Reads bills of lading to determine items being hipped, destination, priority of order, and shipping date. Confers with department personnel to ascertain items available for shipment and production short-ges. Notifies shipping personnel and department supervisors of items listed on hipping orders as available, but not located, in attempt to expedite processing f items required for immediate shipment. Maintains bills of lading files.
GOE: 07.05.01 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 86

22.384-010 INSPECTOR, RECEIVING (aircraft mfg.; elec. equip.; electron. comp.)

Inspects purchased parts, assemblies, accessories, and materials for conform-nce to specifications, using precision measuring instruments and devices: Ex-mines items for defects in materials, workmanship, and damage occurring in ansit. Compares quantity and part number of items received with procurement ata and other specifications to ensure completeness and accuracy of order. In-pects and measures items for dimensional accuracy, fit, alignment, and func-onal operation, according to blueprints, parts manuals, company or military andards, and other specifications, using precision measuring instruments and evices. Approves or rejects items, and records inspection and disposition infor-ation. May test hardness of metals, using testing equipment. May examine x ys of welded parts to determine that welds conform to established standards. lay inspect outgoing and production line parts and materials. May prepare in-pection procedure outlines for reference use in subsequent inspections, using ata obtained from blueprints, customer specifications, and catalogs.
OE: 06.03.01 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 88

22.387-010 AIRCRAFT-SHIPPING CHECKER (aircraft mfg.) alternate titles: aircraft-delivery checker

Examines completed aircraft to ensure that spare parts, accessories, or sub-semblies, itemized on packing and loading sheet, are aboard craft before de-very to customer: Examines blueprints showing location of parts in aircraft. erifies that part is aboard, and records part serial numbers on packing sheet. eports shortages of parts and subassemblies, as indicated by packing and load-g sheet, to designated department. Reads various work orders and operational cords and enters such data as contract number, test flight time, maintenance d repair orders, and engine run-up time (engine test time) of aircraft in gbooks that accompany completed aircraft. May obtain spare parts from store-om and forward them for packing and crating. May load crated or loose parts to aircraft.
OE: 05.09.03 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 87

22.387-014 CAR CHECKER (r.r. trans.)

Verifies identity of freight cars entering classification yard to ensure that ains are complete upon arrival: Records information, such as car number, type car, car owner, and date and time of arrival. Compares information with anifest and prepares report showing discrepancies. Examines door seals on rs to determine that seals have not been tampered with or broken. Marks code mber or symbol on cars to indicate disposition of cars by switching crew. ay record date, mileage, and number of cars switched by switching crew and known as Switching Clerk (r.r. trans.).
DE: 05.09.03 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

2.387-018 FUEL-OIL CLERK (clerical)

Maintains records and prepares reports regarding quantity and value of fuel purchased, received, stored, and used in steam-electric generating plants: Witnesses receipt of fuel oil by company tank-farm operating personnel to verify oil-gaging reports. Examines supplier documents and generating plant records to obtain fuel oil use and loss data. Verifies computation of gross and net barrels of oil received, using standard conversion tables and simple arithmetic. Computes quantity of fuel oil burned, Btu's per barrel, and quantity in storage from operating records and laboratory reports. Posts computations and other related data to fuel-oil ledgers and records and compares data with contract specifications and delivery documents to detect errors and verify accuracy of entries. Telephones representatives of fuel-oil suppliers, railroads, and company traffic department to verify delivery dates and quantities, to determine cause of variations in loading and unloading temperatures and to correct discrepancies in delivery documents or errors in invoices. Notifies supervisory personnel when discrepancies and errors cannot be resolved. Prepares receipts for oil received. Prepares reports of quantity and value of oil purchased, received, lost in delivery, burned, and in storage tanks.
GOE: 07.02.03 STRENGTH: S GED: R3 M3 L2 SVP: 7 DLU: 77

222.387-022 GUN-REPAIR CLERK (ordnance) alternate titles: package opener

Receives and examines small arms and keeps records of arms returned by customers for repair: Receives, unpacks, and examines weapons for live ammunition or mutilated serial numbers. Prepares repair order from customer's request and routes with gun to repair department or sends weapon to GUN EXAMINER (ordnance) and types work order based on report. Verifies repairs made to gun and delivers with invoices to shipping department. Files copies of invoices, cost estimates, and other correspondence concerning receipt, repair, and return of weapon to customer in order to keep record of transaction. May keep inventory of spare parts.
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

222.387-026 INVENTORY CLERK (clerical)

Compiles and maintains records of quantity, type, and value of material, equipment, merchandise, or supplies stocked in establishment: Counts material, equipment, merchandise, or supplies in stock and posts totals to inventory records, manually or using computer. Compares inventories to office records or computes figures from records, such as sales orders, production records, or purchase invoices to obtain current inventory. Verifies clerical computations against physical count of stock and adjusts errors in computation or count, or investigates and reports reasons for discrepancies. Compiles information on receipt or disbursement of material, equipment, merchandise, or supplies, and computes inventory balance, price, and cost. Prepares reports, such as inventory balance, price lists, and shortages. Prepares list of depleted items and recommends survey of defective or unusable items. May operate office machines, such as typewriter or calculator. May stock and issue materials or merchandise. May be designated according to item inventoried as Property-And-Equipment Clerk (petrol. & gas); or type of inventory as Inventory Clerk, Physical (clerical).
GOE: 05.09.01 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 88

222.387-030 LINEN-ROOM ATTENDANT (hotel & rest.; medical ser.) alternate titles: linen checker; linen clerk; linen-exchange attendant; linen-room houseperson; uniform attendant

Stores, inventories, and issues or distributes bed and table linen and uniforms in establishments, such as hotels, hospitals, and clinics: Collects or receives, and segregates, counts, and records number of items of soiled linen and uniforms for repair or laundry, and places items in containers. Examines laundered items to ensure cleanliness and serviceability. Stamps items with identifying marks. Stores laundered items on shelves, after verifying numbers and types of items. Counts and assembles laundered items on cart or linen truck, records amounts of linens and uniforms to fill requisitions, and transports carts to floors. Conducts monthly and yearly inventories to identify items for replacement. Keeps linen room in clean and orderly condition. May mend torn articles with needle and thread or sewing machine or send articles to SEWER, LINEN ROOM (hotel & rest.) 787.682-030.
GOE: 05.09.01 STRENGTH: M GED: R3 M2 L2 SVP: 2 DLU: 86

222.387-034 MATERIAL CLERK (clerical) alternate titles: stock-record clerk

Compiles and maintains records of quantity, cost, and type of material received, stocked, and issued, and prepares material requisitions: Compares information on requisitions, invoices, and shipping notices to material received or issued to verify accuracy of order. Compiles and maintains inventory of material received, stocked, and issued [INVENTORY CLERK (clerical) 222.387-026]. Prepares requests for procurement of material. May inspect, accept or reject material received. May mark identifying information on material. May be designated according to location of goods as Warehouse-Record Clerk (clerical).
GOE: 05.09.03 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 80

222.387-038 PARCEL POST CLERK (clerical) alternate titles: parcel post packer; parcel post weigher

Wraps, inspects, weighs, and affixes postage to parcel post packages, and records c.o.d. and insurance information: Wraps packages or inspects wrapping for conformance to company standards and postal regulations. Weighs packages and determines postage, using scale and parcel post zone book, and affixes postage stamps to packages. Records information, such as value, charges, and destination of insured and c.o.d. packages. Copies and attaches c.o.d. card to

packages to indicate amount to be collected. Addresses packages or compares addresses with records to verify accuracy. May compute cost of merchandise, shipping fees, and other charges, and bill customer. May sort parcels for shipment, according to destination or other classification, and place parcels in mail bags or bins and be designated Mail-Order Sorter (retail trade). May process incoming and outgoing mail [MAIL CLERK (clerical) 209.687-026]. May fill orders from stock and be designated Parcel-Post Order-Clerk (clerical).
GOE: 07.05.04 STRENGTH: H GED: R3 M2 L3 SVP: 3 DLU: 81

222.387-042 PROPERTY CUSTODIAN (motion picture)

Receives, stores, and issues properties in motion picture studio prop room: Examines incoming property for breaks and flaws and notifies supervisor of damage. Attaches identification tags or labels to property according to type of object. Keeps records of incoming and outgoing props, props in inventory, and rented props. May work in makeup department of motion picture or television film studio and be known as Stock Clerk, Makeup (motion picture).
GOE: 05.09.01 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

222.387-046 RETURNED-TELEPHONE-EQUIPMENT APPRAISER (comm. equip.)

Appraises and classifies telephone equipment returned by telephone companies to determine disposition and price: Examines returned supplies and apparatus to identify and classify returns according to price lists and catalogs. Determines adaptability for current use. Records classification, price, and disposition.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

222.387-050 SHIPPING AND RECEIVING CLERK (clerical)

Verifies and keeps records on incoming and outgoing shipments and prepares items for shipment: Compares identifying information and counts, weighs, or measures items of incoming and outgoing shipments to verify information against bills of lading, invoices, orders, or other records. Determines method of shipment, utilizing knowledge of shipping procedures, routes, and rates. Affixes shipping labels on packed cartons or stencils identifying shipping information on cartons, using stenciling equipment. Assembles wooden or cardboard containers or selects preassembled containers. Inserts items into containers, using spacers, fillers, and protective padding. Nails covers on wooden crates and binds containers with metal tape, using strapping machine. Stamps, stencils, or glues identifying information and shipping instructions onto crates or containers. Posts weights and shipping charges, and affixes postage. Unpacks and examines incoming shipments, rejects damaged items, records shortages, and corresponds with shipper to rectify damages and shortages. Routes items to departments. Examines outgoing shipments to ensure shipments meet specifications. Maintains inventory of shipping materials and supplies. May operate tierlift truck or use handtruck to move, convey, or hoist shipments from shipping-and-receiving platform to storage or work area. May direct others in preparing outgoing and receiving incoming shipments. May perform only shipping or receiving activities and be known as Shipping Clerk (clerical) or Receiving Clerk (clerical). May be designated according to specialty as Freight Clerk (clerical); Reshipping Clerk (clerical). May receive damaged or defective goods returned to establishment and be designated Returned-Goods Receiving Clerk (clerical). May receive unsold products returned by DRIVER, SALES ROUTE (retail trade; wholesale tr.) 292.353-010 and be designated Route Returner (clerical).
GOE: 05.09.01 STRENGTH: M GED: R3 M3 L2 SVP: 5 DLU: 88

222.387-054 SORTER-PRICER (nonprofit org.) alternate titles: pricer-sorter

Sorts used merchandise received from donors and appraises, prices, wraps, packs, and allocates merchandise for resale in retail outlets of nonprofit organization and maintains related records. Discards unsalable items or sets them aside for salvage or repair. May make minor repairs on damaged merchandise. May be designated according to merchandise sorted as Book Sorter (nonprofit org.); Clothing Sorter (nonprofit org.); Jewelry Sorter (nonprofit org.); Wares Sorter (nonprofit org.).
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

222.387-058 STOCK CLERK (clerical) alternate titles: stock checker; stockroom clerk; storekeeper; storeroom clerk; storeroom keeper; stores clerk; supply clerk; supply-room clerk

Receives, stores, and issues equipment, material, supplies, merchandise, foodstuffs, or tools, and compiles stock records in stockroom, warehouse, or storage yard: Counts, sorts, or weighs incoming articles to verify receipt of items on requisition or invoices. Examines stock to verify conformance to specifications. Stores articles in bins, on floor, or on shelves, according to identifying information, such as style, size, or type of material. Fills orders or issues supplies from stock. Prepares periodic, special, or perpetual inventory of stock. Requisitions articles to fill incoming orders. Compiles reports on use of stock handling equipment, adjustments of inventory counts and stock records, spoilage of or damage to stock, location changes, and refusal of shipments. May mark identifying codes, figures, or letters on articles, using labeling equipment. May distribute stock among production workers, keeping records of material issued. May make adjustments or repairs to articles carried in stock. May determine methods of storage, identification, and stock location, considering temperature, humidity, height and weight limits, turnover, floor loading capacities, and required space. May cut stock to size to fill order. May move or transport material or supplies to other departments, using hand or industrial truck. May maintain inventory and other stock records, using computer terminal. May be designated according to material, equipment, or product stored as Camera-Storeroom Clerk (motion picture); Oil-House Attendant (clerical); Wire Stockkeeper (steel & rel.); or work location as Wine-Cellar Stock Clerk (hotel & rest.); or stage in manufacture of material or goods as Finished-Goods Stock Clerk (clerical); or container in which goods are stored as Drum-Stock Clerk (clerical). May receive and store incoming shipments of yarn, thread, or jute stock and verify color standards of shipment and be known as Color Standards Clerk (clerical). May be designated: Custodian, Blood Bank (medical ser.); Food Storeroom Clerk (hotel & rest.); Hogshead-Stock Clerk (tobacco); Material Stockkeeper, Yard (petrol. & gas); Mold Picker (rubber goods); Paint Stocker (aircraft mfg.); Pattern-Room Attendant (foundry); Printing-Plate (clerical); Refrigerator-Room Clerk (clerical). May receive, store, and sort unserviceable equipment and supplies for sale, disposal, or reclamation and be known as Salvage Clerk (clerical).
GOE: 05.09.01 STRENGTH: H GED: R3 M3 L2 SVP: 4 DLU: 88

222.387-062 STOREKEEPER (water trans.) alternate titles: cargo-gear mechanic

Receives, stores, and issues supplies and equipment and compiles records of supply transactions aboard ship: Verifies that supplies received are listed on requisitions and invoices. Stores supplies and equipment in storerooms. Issues supplies. Inventories supplies and equipment at end of each voyage. Compiles report of expenditures. May be designated according to department worked in as Storekeeper, Deck (water trans.); Storekeeper, Engineering (water trans.); Storekeeper, Steward (water trans.).
GOE: 05.09.01 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

222.387-066 SAMPLE CLERK (plastic prod.)

Receives and fills requisitions for samples of fabricated plastic products and inspects samples for conformance to company standards: Collects sample products from production lines and inspects samples for conformance to company standards, using specification sheets, gauges, and color standard chart. Stores selected samples in sample room, pending requests for samples from sales representatives and customers. Wraps and packs samples, upon request, for shipment. Maintains records of requests received and filled. Maintains perpetual inventory of samples and replenishes sample stock to maintain required levels.
GOE: 05.09.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 86

222.387-074 SHIPPING-AND-RECEIVING WEIGHER (clerical) alternate titles: weight recorder

Weighs and records weight of filled containers, cargo of loaded vehicles, or rolls of materials, such as cotton, sugarcane, paper, cloth, plastic, and tobacco, to keep receiving and shipping records: Reads scale dial to ascertain weight and records weight on ticket, product, or material; or subtracts tare from gross weight to obtain net weight of product or material; or inserts ticket into automatic scale recorder that prints weight on ticket. May convey objects to scale, using handtruck, and lift objects onto scale. May record information on weight ticket, such as grade and yardage. May be designated according to item weighed as Cloth Weigher (knitting); Garment Weigher (knitting); Roll Weigher (paper & pulp; paper goods; plastics-synth.); Tobacco Weigher (clerical). May signal YARD ENGINEER (r.r. trans.) 910.363-018 to move cars on and off scale and be designated Scaler (r.r. trans.). May weigh only incoming or outgoing materials or products and be designated Receiving Weigher (clerical); Shipping Weigher (cerical).
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 80

222.485-010 MILK-RECEIVER, TANK TRUCK (dairy products) alternate titles: bulk intake worker

Tends pump that pumps incoming milk from tank trucks to storage tank, and computes and records volume of milk received: Weighs loaded truck on platform scale and records weight on record sheet. Dips and pours sample of milk from vent hole of truck into bottle for laboratory analysis. Tastes and takes temperature of milk, and records taste data and temperature reading. Connects plastic hose between sanitary valves of truck and storage tank, starts pump, and turns valves to transfer milk to tank. Stops pump when transfer is completed, reads milk-flow meter, and records volume pumped on record sheet. Disconnects plastic hose from truck tank and connects nozzle of tank-cleaning system to vent hole of tank. Starts equipment that automatically rinses, washes, and sanitizes interior of tank. Removes nozzle and seals vent hole. Washes exterior of truck and pumping equipment, using brushes, detergent solution, and water hose. Weighs empty truck and records weight. Computes difference between loaded and unloaded weights of truck to verify accuracy of meter.
GOE: 05.09.01 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

222.487-010 CHECKER, BAKERY PRODUCTS (bakery products) alternate titles: order filler, bakery products

Loads racks with bakery products to prepare orders for shipping, according to products available and following order slips: Adjusts amount of products going to routes according to supply and route-return records of DRIVER, SALES ROUTE (retail trade; wholesale tr.) 292.353-010. Loads products onto tiered racks and pushes racks to loading area. Records adjustments on route slips.
GOE: 05.09.01 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 78

222.487-014 ORDER FILLER (retail trade; wholesale tr.)

Fills customers' mail and telephone orders and marks price of merchandise on order form: Reads order to ascertain catalog number, size, color, and quantity of merchandise. Obtains merchandise from bins or shelves. Computes price of each group of items. Places merchandise on conveyor leading to wrapping area.

GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

222.567-010 GRAIN ELEVATOR CLERK (beverage; grain-feed mills) alternate titles: grain weigher
Records data pertaining to receiving, storing, and shipping of grain at grain elevators: Examines bin slips or track list to determine type, destination, and estimated weight of railroad car. Signals workers to dump or load cars, using bell, light, or telephone. Pulls lever to open slide gate on storage hopper to dump grain into scale hopper. Weighs grain and inserts ticket into automatic recorder on scale that stamps weight on ticket. Notifies government inspector to examine beam scale balance and stamped ticket. Records weight, description, and destination of grain shipped and received. Keeps charts indicating location and contents of storage tanks. Assigns workers to jobs according to work schedules, and reviews timecards. Grades and weighs grain samples, using hand graders and scales, and records results. Reads thermometers on control panel to ascertain grain temperatures at various levels in storage tank. May start conveyors, select flow pipes, set trippers, and select storage tanks to convey grain into storage or to loading department.
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

222.567-014 SHIP RUNNER (water trans.) alternate titles: floor runner; runner
Determines location for merchandise on dock preparatory to being stowed on ship or transported to receivers: Inspects freight to determine amount of dock space freight will occupy. Directs movement and disposition of freight on dock. Marks destination of outgoing freight in large letters on dock, using chalk. Records deliveries in record book.
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

222.567-018 SLOT-TAG INSERTER (clerical)
Inserts address tags into slots (holders) of mailsacks used for bulk mailing of subscription magazines and catalogs: Receives and deposits, in mailsacks, stacked or tied bundles of magazines addressed to same city or state. Selects printed destination tag from labeled compartment of wall rack, and inserts tag into metal holder attached to mail bag. Marks tag indicating to postal employees whether magazines in mailsack are all addressed to one city or to various cities within same state. Notifies co-worker to tie, lock, and remove filled sacks. Handwrites mail slot-tags when printed tags are not supplied for specified destination area, referring to list of postal terminals.
GOE: 07.07.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

222.585-010 MILK RECEIVER (dairy products) alternate titles: can intake worker
Dumps, weighs, and records weight of incoming milk received in milk cans by dairy, and tends washing machine that sterilizes empty cans: Presses switch to activate conveyor of can washing machine and turns valves to admit steam and water to machine. Presses switch to activate conveyor that moves individual producer's milk cans from unloading dock to dumping station. Removes cover from each can, smells milk to detect sourness, and tilts can to dump milk into weigh tank. Places emptied cans and covers on conveyor of washing machine. Reads scale and records total weight of milk in producer's shipment and identification number of producer on record sheet. Dips and pours sample of producer's milk from weigh tank into bottle for laboratory analysis. Pulls lever to open valve and empty weigh tank. Cleans and lubricates washing machine and conveyors.
GOE: 05.09.01 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

222.587-014 BRAILLE-AND-TALKING BOOKS CLERK (library)
Prepares braille and talking books for mailing to blind library patrons and receives books returned by patrons: Stamps issue date on book card to maintain record of location of borrowed books. Stamps due date on issue card and inserts card and return mailing label in book pocket. Places books in mailing container and affixes address label to container, securing container with straps for mailing. Receives and examines returned books for damage, such as torn paper and scratched record surfaces. Stamps return date on book card. Shelves returned books alphabetically by author's name or by title.
GOE: 07.05.04 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

222.587-018 DISTRIBUTING CLERK (clerical) alternate titles: packing-and-shipping clerk; publications-distribution clerk
Assembles and routes various types of printed material: Assembles specified number of forms, manuals, or circulars for each addressee as indicated by distribution tables or instructions. Wraps, ties, or places material in envelopes, boxes, or other containers. Stamps, types, or writes addresses on packaged materials. Forwards packages by mail, messenger, or through message center. Keeps records of materials sent. May requisition and store materials to maintain stock [STOCK CLERK (clerical)].
GOE: 07.07.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

222.587-022 KITCHEN CLERK (hotel & rest.) alternate titles: storeroom food-checker
Verifies quantity and quality of foodstuffs issued to kitchen from storeroom. Weighs and measures foodstuffs to verify quantity received. Oversees distribution of all foodstuffs. Prepares inventory of foodstuffs on hand in kitchen.
GOE: 05.09.03 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

222.587-026 LABORATORY CLERK (clerical)
Keeps records of chemicals, apparatus, and samples, such as coal, ash, and oil, received for testing in control laboratory. Weighs and prepares for shipment chemical supplies furnished by laboratory. Cleans glassware and other laboratory apparatus, and salvages sample bottles or containers for reuse. Returns unused chemicals to designated cabinets and cleans work area, using mop.
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

222.587-030 MAILER (print. & pub.)
Mails or dispatches newspapers, periodicals, envelopes, cartons, or other bulk printed matter by performing any combination of following duties: Wraps or bundles printed matter by hand or using tying machine. Addresses bundle or wrapped printed matter by hand or stamps, tags, or labels them according to mailing lists and dispatching orders, using stencils and stamping machine. Sorts bundles according to zip code and places bundles to be mailed in specified mail bags. Stacks bundles for shipment and loads and unloads bundles onto and from trucks and conveyors. Files and corrects stencils. Counts and records number of bundles and copies handled. May keep card record distribution file of units mailed or dispatched to subscribers and dealers.
GOE: 05.09.01 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

222.587-032 MAILER APPRENTICE (print. & pub.)
Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.09.01 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

222.587-034 ROUTE-DELIVERY CLERK (clerical)
Prepares itemized delivery sheet for items of merchandise to be delivered by truck drivers, grouping and routing deliveries according to designated districts: Copies information, such as name, address of consignee, type of merchandise, number of pieces, and mailing designation, from records onto delivery sheet. Locates and selects merchandise and verifies against delivery sheet specifications. May arrange for unloading of merchandise from freight cars, transport trucks, or ships, into consignees' trucks. May keep records of and arrange for storage of undelivered merchandise.
GOE: 07.05.04 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

222.587-038 ROUTER (clerical) alternate titles: dispatcher; marker, delivery; routing clerk
Stamps, stencils, letters, or tags packages, boxes, or lots of merchandise to indicate delivery routes. Reads addresses on articles and determines route, using standard charts.
GOE: 07.07.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

222.587-042 SAMPLER, WOOL (wholesale tr.)
Records wool lot numbers and forwards samples to wool-buying house: Observes manner in which sample is drilled from sacks to ensure representative sample. Records lot number from which sample is taken. Packs and forwards samples to wool-buying house.
GOE: 05.09.03 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

222.587-046 STACKER (leather prod.) alternate titles: bundler
Counts novelty case parts to verify amount specified on work ticket and stacks and bundles parts prior to spraying. May burn off feather edges from bundled leather parts, using gas torch.
GOE: 05.09.03 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

222.587-050 SWATCH CLERK (garment)
Collects cloth samples (swatches) from cutting rooms and marks each lot to identify webs (bolts) of cloth from which samples were cut. Files and keeps inventory of swatch cards that are used to show prospective customers available fabrics. Mails swatches to customers on request. Checks swatch cards prepared by outside firm to ensure conformance to original order.
GOE: 05.09.03 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

222.587-054 TRANSFORMER-STOCK CLERK (utilities)
Receives, stores, and issues transformers used in electric power system: Moves new transformers to storage space, using hoist. Drains oil from used transformers. Starts motor-driven pump which forces used oil through filtering machine and into storage tank. Selects type and size of transformer to fill requisition. Fills oil container of transformers to be issued with new or reclaimed oil. Hoists transformers onto truck for delivery. Keeps stock records.
GOE: 05.09.01 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

222.587-058 VAULT WORKER (business ser.)
Keeps records of, sorts, and routes sealed money bags received at and dispatched from vault of armored car firm: Receives bags and signs routing slip to acknowledge receipt. Sorts bags according to delivery routes. Records data, such as origin, routing, and destination of bags. Delivers bags to ARMORED-CAR GUARD (business ser.) for loading onto truck and verifies that guard has signed routing slip. Submits logs and routing slips to VAULT CASHIER (business ser.) for review.
GOE: 07.05.04 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

222.684-010 MEAT CLERK (retail trade)
Receives, stores, and grinds meats in retail establishment: Unloads fresh, cured, and boxed meats and poultry from delivery truck and transports them to storage room on conveyor and with handtruck. Counts and weighs incoming articles and compares results against invoice. Examines meats in storage and rotates meats to avoid aging. Cuts meat into small pieces suitable for grinding, and grinds for use as hamburger, meat loaf, and sausage, using powered grinding machine. Cleans grinder, meat containers, and storage room with water hose and broom. May take meat orders from customers.

GOE: 05.09.01 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

222.687-010 CHECKER I (clerical)
Verifies quantities, quality, condition, value, and type of articles purchased, sold, or produced against records or reports. May sort data or items into predetermined sequence or groups. May record items verified. May be designated according to type of establishment as Warehouse Checker (clerical).
GOE: 07.07.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 80

222.687-014 GARMENT SORTER (garment)
Sorts finished garments, such as shirts, dresses, and pajamas, according to lot and size numbers recorded on tags and labels attached to garments. May fold and package garments in boxes and bags. May iron garments prior to folding [PRESSER, HAND (any industry)]. May be designated according to garment sorted as Shirt Sorter (garment).
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

222.687-018 RECEIVING CHECKER (clerical) alternate titles: checking clerk; order checker; receiving inspector; unloading checker
Counts, measures, or weighs articles to verify contents of shipments against bills of lading, invoices, or storage receipts. May examine articles for defects and sort articles according to extent of defect. May attach identification data onto article. May record factors causing goods to be returned. May unload and unpack incoming shipments.
GOE: 05.09.03 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 80

222.687-022 ROUTING CLERK (clerical) alternate titles: route clerk; router
Sorts bundles, boxes, or lots of articles for delivery: Reads delivery or route numbers marked on articles or delivery slips, or determines locations of addresses indicated on delivery slips, using charts. Places or stacks articles in bins designated according to route, driver, or type. May be designated according to work station as Conveyor Belt Package Sorter (retail trade). May sort sacks of mail and be known as Mail Sorter (r.r. trans.).
GOE: 07.07.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

222.687-026 SAMPLE DISPLAY PREPARER (knitting)
Fills orders for sample hose for sales personnel and customers: Selects hose, pantyhose, surgical hose, and socks according to specifications and examines hose for defects. Pairs hose according to size, color, and length. Attaches label designating size, color, and style to top of hose. Folds and packs hose in boxes. Records name of customer or seller, size, style, color, and quantity of hose, and shipping date. May stamp identifying information on hose, using transfer paper and stamping iron.
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 81

222.687-030 SHIPPING CHECKER (clerical) alternate titles: loading checker; order checker; packing checker
Verifies quantity, quality, labeling, and addressing of products and items of merchandise ready for shipment at manufacturing or commercial establishment: Counts, weighs, measures, or examines packaging and contents of items for conformance to company specifications. Affixes postage on packages, using postal meter. Compares items packed with customer's order and other identifying data. May keep records on number of baskets of tobacco sold and removed from auction warehouse and be designated Tobacco-Checkout Clerk (wholesale tr.). May oversee crew of workers engaged in loading and bracing material in railroad cars or trucks.
GOE: 05.09.01 STRENGTH: L GED: R3 M3 L2 SVP: 4 DLU: 77

222.687-034 STUBBER (retail trade)
Removes sales-slip stubs from packages at loading dock and sorts stubs, according to size of package or type of merchandise, to keep record of store deliveries. Returns illegibly addressed or mutilated packages for rewrapping or readdressing. Totals number of stubs at end of day and prepares report.
GOE: 05.09.03 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

222.687-038 TOOTH CLERK (protective dev.)
Selects false teeth used to make dental plates: Selects teeth of color specified and according to shape of jaw. Matches teeth with teeth of mold made by DENTIST (medical ser.) 072.101-010 preparatory to assembly of dentures by DENTAL-LABORATORY TECHNICIAN (protective dev.) 712.381-018.
GOE: 05.12.19 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

222.687-042 INSPECTOR, HANDBAG FRAMES (leather prod.) alternate titles: frame opener
Inspects metal or plastic frames used in manufacture of women's handbags: Removes frames from packing case and verifies order with invoice and shipping order. Examines frames for defects, such as scratches, discolorations, or missing hinge pins. Opens and closes frames to test frame construction and ease of fastening. Discards defective frames for repair or return to manufacturer. Compiles inventory of acceptable and unacceptable frames received.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

222.687-046 PROTECTIVE-CLOTHING ISSUER (chemical)
Sorts and issues protective clothing and related supplies to workers: Receives delivery of items such as coveralls, underwear, gloves, and towels from laundry, checks items against list to verify completeness of delivery, and sorts items by type and size. Opens workers' lockers, using master key, and places clean items in locker. Removes, sorts, and counts soiled items stored in hamper. Disposes of worn items. Maintains inventory of clean laundry received and issued.
GOE: 07.07.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

229 PRODUCTION AND STOCK CLERKS AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with maintaining production records, expediting flow of work and materials, and receiving, storing, shipping, issuing, requisitioning, and accounting for materials and goods. Similar occupations, not elsewhere classified, concerned primarily with loading and moving materials and products are found in Group 929.

229.137-010 SACK-DEPARTMENT SUPERVISOR (grain-feed mills)
Supervises and coordinates activities of workers engaged in receiving, storing, and distributing such grain and feed mill supplies as bags, cartons, sacks, and twine, and in cleaning, sorting, and repairing sacks. Schedules distribution of sacks, bags, and other supplies to packing machines according to packing orders. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.09.01 STRENGTH: L GED: R4 M3 L2 SVP: 6 DLU: 77

229.137-014 YARD SUPERVISOR (construction)
Supervises and coordinates activities of workers engaged in receiving, storing, issuing, and maintaining machines, equipment, materials, and supplies in construction storage building or yard: Dispatches materials and equipment to construction sites. May requisition materials and supplies. May operate crane to move items in yard. May repair machines and equipment. May supervise workers engaged in fabricating metal structural members and concrete forms and products used on construction projects. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

229.267-010 PARTS CATALOGER (any industry) alternate titles: engineering clerk; parts data writer; technical release analyst
Reviews blueprints, change orders, and other engineering data to prepare and maintain master parts listings, catalogs, and other documentation used for material requisitioning and disbursement, inventory control, production planning, scheduling, and related manufacturing activities: Examines engineering drawings, blueprints, orders, and other documentation for conformance to established criteria regarding materials, parts, and equipment specified, and initiates requests for changes to ensure compliance with standards. Reviews engineering data and compiles list of materials, parts, and equipment required for manufacturing product. Prepares and maintains manual or computerized record systems providing detailed parts information, such as complete description, quantities, operational characteristics, functions, and specifications [PARTS LISTER (electron. comp.) 229.367-014]. Prepares and updates parts catalogs, manuals, and related documentation. Releases parts data and documentation to authorized departments and organizations. May determine material requirements for fabricating parts, considering size, cutting, and forming involved. May assist in determining adequate spare parts inventory requirements for customers.
GOE: 05.03.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 88

229.367-010 FIELD RECORDER (utilities) alternate titles: field clerk
Maintains records of equipment, materials, and supplies used in construction, installation, and maintenance of electric-power distribution lines and facilities: Observes operations of field crew, and records data, such as equipment installed or replaced, materials and supplies used, and labor costs. Prepares sketches or enters on drawing type of equipment installed and location of equipment in order that circuit maps and blueprints can be corrected. Prepares and attaches identification tags to equipment, such as transformers and switches removed from service for repair or storage. Prepares and nails metal tags on pole indicating circuit and station in transmission or distribution line. Maintains inventory of equipment in field truck and prepares requisitions for replacement parts, materials, and supplies.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

229.367-014 PARTS LISTER (electron. comp.)
Compiles master lists of replaceable parts in electronic equipment to ensure inventories and to provide government and other customers with information on source of parts: Reads master bill of materials to obtain complete list of parts used in product. Identifies each item by part number, manufacturer, and brief description. Contacts purchasing department, engineering department, and vendor representatives regarding procurement and availability of specially designed components. May operate computer to access and compile master lists.
GOE: 05.09.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 88

229.387-010 MATERIAL LISTER (construction)
Reviews blueprint and material specifications to determine amount, size, kind, grade, and place of delivery of materials for building construction projects. May list suppliers and bid prices for each type of material used. May prepare material schedules showing promised delivery data for each type of material. May keep records of materials received and used on project.
GOE: 05.03.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

229.387-014 TANK CALIBRATOR (business ser.)
Measures tanks of varying sizes and shapes to determine incremental and total liquid capacities, using one or both of following methods: (1) Extends tape to encircle tanks at specified level to measure circumference. Lowers tape to measure outside and inside heights at specified places. Measures width, height,

and thickness of projections, such as flanges, boltheads, shell plate, butt-welded joint, rivets, overflows, and floating roofs, using tapes, calipers, and straightedge. Records measurements and calculates total and incremental tank capacities to prepare gauging tables, following formulas. (2) Measures tank, using liquid calibration methods. Turns valves to admit measured quantities of liquid from calibrated container into tank being calibrated. Lowers tape into tank at specified places and records measurements. Repeats process to obtain measurements at various levels. Takes temperature, samples, and records type of calibration liquid, using thermometer and sample container. Prepares gauging tables, following formulas. May prepare sketches and drawings of tanks and tank projections.
GOE: 05.09.03 STRENGTH: M GED: R4 M4 L3 SVP: 5 DLU: 77

229.587-010 GREIGE-GOODS MARKER (textile) alternate titles: marker, hand

Assigns identifying numbers to cuts of greige cloth received for finishing. Records numbers on cloth and on lot sheet to ensure return of cloth to customer after finishing. May record numbers on tag or ticket and attach to cloth. May cut open bundles of cloth, using knife, and verify that cloth meets specifications on customer order.
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

229.587-014 QUALITY-CONTROL CLERK (pharmaceut.)

Stores samples of materials tested and records test result data for product stability study program: Files bottles of raw materials used in pharmaceutical compounding, samples of purchased and plant-processed intermediate products, lot control samples, and samples of finished pharmaceutical batches. Stores samples of finished products in cartons labeled with type of product (cream, liquid, tablet) and records identifying data in alphabetical index listing. Keeps tickler file for withdrawal of samples for testing. Withdraws samples on dates indicated and takes them to laboratory. Keeps file of product stability study control charts. Records on charts test result data, such as appearance, color, and melting point.
GOE: 07.05.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

229.587-018 TICKETER (textile) alternate titles: labeler; tagger; ticket stamper

Records or stamps information, such as price, size, style, color, and inspection results on tags, tickets, and labels, using rubber stamp or writing instrument. Pastes, staples, sews, or otherwise fastens tickets, tags, labels, or shipping documents to cloth or carpeting. May compute number of rolls of cloth to be produced from each lot to determine required number of tickets, tags, or labels. May trim excess threads from selvage (finished edge) of cloth, using scissors or shears. May keep records of production, returned goods, and personnel transactions.
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

229.687-010 SAMPLE CHECKER (carpet & rug; textile)

Examines cloth samples mounted in books or tagged to verify that samples are neatly mounted and are identical in color, weave, and hand with swatch previously approved by customer. Compares style number marked on sample with that on customer's order and on standard swatch. May assemble cards or books for shipment to sales department.
GOE: 05.09.03 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

23 INFORMATION AND MESSAGE DISTRIBUTION OCCUPATIONS

This division includes occupations concerned with the distribution of information and messages by direct personal or telephone contact, involving such activities as delivering mail, relaying messages by telephone or telegraph equipment, arranging travel accommodations, and directing visitors at reception points.

230 HAND DELIVERY AND DISTRIBUTION OCCUPATIONS

This group includes occupations concerned with the hand delivery or distribution of mail, messages, packages, telephone directories, product samples, and handbills to the public or to industrial or commercial establishments, generally involving outside travel on foot or by bicycle or motor vehicle. Occupations concerned with the delivery of goods by truck involving collection of payment for goods delivered or delivery of goods to a distribution site are included in Groups 905 and 906, or in Group 292 if concerned with the delivery and sale of products over an established route. Occupations concerned with the delivery of messages and documents or the distribution of office supplies within an establishment are included in Group 239.

230.137-010 SUPERVISOR, ADVERTISING-MATERIAL DISTRIBUTORS (business ser.)

Supervises and coordinates activities of crew of workers engaged in distributing sample merchandise, handbills, or coupons: Issues advertising material to ADVERTISING-MATERIAL DISTRIBUTORS (any industry) and instructs them in methods of distribution. Assigns workers to specified routes and tours area to ensure coverage of assigned territory. Records information, such as area covered, material distributed, and working hours. May hire crewmembers. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.07.02 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

230.137-014 SUPERVISOR, DELIVERY DEPARTMENT (tel. & tel.)

Supervises and coordinates activities of workers engaged in telegram and package pickup and delivery service of telegraph office: Trains and supervises TELEGRAM MESSENGERS (tel. & tel.). Assigns pickup and delivery routes on basis of knowledge of area served. May keep time and activity records of department employees. May train and supervise TELEGRAPH-SERVICE RATERS (tel. & tel.). Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.07.02 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

230.137-018 SUPERVISOR, MAIL CARRIERS (government ser.)

Supervises and coordinates activities of workers engaged in collecting, sorting, and delivering mail: Receives, investigates, and initiates action on patron's complaints. May analyze carrier routes and recommend changes of route boundaries to regulate amount of mail being delivered. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.05.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

230.363-010 RURAL MAIL CARRIER (government ser.)

Delivers mail along established route outside town or city corporate limits: Sorts mail for delivery according to location along route. Delivers mail over route by motor vehicle. Picks up outgoing mail, sells stamps, and issues money orders.
GOE: 07.05.04 STRENGTH: M GED: R3 M3 L2 SVP: 2 DLU: 86

230.367-010 MAIL CARRIER (government ser.) alternate titles: city carrier; letter carrier

Sorts mail for delivery and delivers mail on established route: Inserts mail into slots of mail rack to sort for delivery. Delivers mail to residences and business establishments along route. Completes delivery forms, collects charges, and obtains signature on receipts for delivery of specified types of mail. Enters changes of address in route book and re-addresses mail to be forwarded. May drive vehicle over established route. May deliver specialized types of mail and be designated Parcel-Post Carrier (government ser.); Special-Delivery Carrier (government ser.).
GOE: 07.05.04 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 86

230.647-010 SINGING MESSENGER (business ser.)

Performs song and dance routines to deliver messages and entertain specified individuals for customers of message delivery service: Practices song and dance routines with experienced worker to become familiar with routines offered by service. Receives customer instructions from dispatcher, selects standard message supplied by service, or records customer's personalized message on form, using typewriter or pen. Applies theatrical makeup and dresses in costume, when necessary, and travels to destination, using vehicle, maps, and customer instructions. Locates recipient of message and performs routine, basing time frame of routine on recipient's reaction. May play musical instruments, such as kazoo or finger cymbals, during routine. May present gift items at conclusion of performance.
GOE: 07.07.02 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 86

230.663-010 DELIVERER, OUTSIDE (clerical) alternate titles: courier; messenger

Delivers messages, telegrams, documents, packages, and other items to business establishments and private homes, traveling on foot or by bicycle, motorcycle, automobile, or public conveyance. May keep log of items received and delivered. May obtain receipts or payment for articles delivered. May service vehicle driven, such as checking fluid levels and replenishing fuel. May be designated according to item delivered, as Telegram Messenger (tel. & tel.).
GOE: 07.07.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 88

230.667-014 TELEPHONE-DIRECTORY DELIVERER (business ser.) alternate titles: phone-book deliverer

Delivers telephone directories to residences and business establishments, on foot: Receives supply of directories from TELEPHONE-DIRECTORY-DISTRIBUTOR DRIVER (business ser.) or from other individual at central distribution point or from vehicle parked in distribution area, places books on handtruck or in sacks or other containers, and delivers books, following verbal instructions or address list. May pick up outdated directories for return for salvage purposes.
GOE: 07.07.02 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

230.687-010 ADVERTISING-MATERIAL DISTRIBUTOR (any industry) alternate titles: distributor, advertising material

Distributes advertising material, such as merchandise samples, handbills, and coupons, from house to house, to business establishments, or to persons on street, following oral instructions, street maps, or address lists. May be designated according to type of advertising material distributed as Handbill Distributor (any industry); Pamphlet Distributor (any industry); Sample Distributor (any industry).
GOE: 07.07.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

235 TELEPHONE OPERATORS

This group includes occupations concerned with operating telephone switchboards to relay incoming and interoffice calls, make connections with outside lines for outgoing calls, establish connections between subscribers, supply information, and calculate long-distance charges.

235.132-010 CENTRAL-OFFICE-OPERATOR SUPERVISOR (tel. & tel.)
Supervises and coordinates activities of CENTRAL-OFFICE OPERATORS (tel. & tel.) engaged in operating telephone switchboards: Conducts on-the-job training for inexperienced operators. Assists operators in placing unusual types of calls. May discuss service problems directly with customers. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.04.06 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

235.132-014 COMMUNICATION-CENTER COORDINATOR (air trans.)
Supervises and coordinates activities of airport terminal personnel engaged in receiving and issuing communications on telephone, internal radio, and public-address system, and monitoring electronic equipment. Receives telephone or radio requests for repair of electronic equipment, such as elevator-monitoring devices, and relays requests to maintenance department. Telephones key personnel in emergencies, such as bomb threats. Records activities in logs. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.04.05 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

235.137-010 TELEPHONE OPERATOR, CHIEF (clerical)
Supervises and coordinates activities of TELEPHONE OPERATORS (clerical) 235.662-022 in telephone or telegraph office or in industrial establishment: Notifies telephone company maintenance department of switchboard operational difficulties reported by operators. Prepares work schedules and assigns switchboard positions. Trains new employees and keeps attendance records. Maintains record of incoming and outgoing long-distance and tie line calls, noting duration and time of calls. Keeps record of employees' personal calls and forwards record to department head for collection. Compiles plant phone directory, arranges for distribution to designated personnel, and keeps record of directories distributed. Performs other duties as described under SUPERVISOR (clerical) Master Title. May relieve operators. May supervise operators of telephone answering and message service and be designated Supervisor, Telephone-Answering-Service (business ser.).
GOE: 07.04.06 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 78

235.222-010 PRIVATE-BRANCH-EXCHANGE SERVICE ADVISER (tel. & tel.)
Conducts training classes in operation of switchboard and teletype equipment: Explains mechanical construction and operation of switchboards and demonstrates procedures for receiving and completing incoming and interoffice calls. Observes operators handling calls and recommends methods to improve service. Analyzes traffic loads and conducts studies to determine equipment needs. Keeps records of equipment in subscribers' establishments.
GOE: 07.04.05 STRENGTH: L GED: R4 M2 L4 SVP: 6 DLU: 77

235.387-010 RADIO-MESSAGE ROUTER (tel. & tel.)
Classifies messages at central-office exchange and routes messages for transmission: Places routing information on message, such as method of transmission, route, and operator's code. Places message in pneumatic tube or basket for delivery to operator.
GOE: 07.05.04 STRENGTH: S GED: R3 M1 L3 SVP: 5 DLU: 77

235.462-010 CENTRAL-OFFICE OPERATOR (tel. & tel.) alternate titles: switchboard operator; telephone operator
Operates telephone switchboard to establish or assist customers in establishing local or long-distance telephone connections: Observes signal light on switchboard, plugs cords into trunk-jack, and dials or presses button to make connections. Inserts tickets in calculagraph (time-stamping device) to record time of toll calls. Consults charts to determine charges for pay-telephone calls, and requests coin deposits for calls. May give information regarding subscribers' telephone numbers [DIRECTORY-ASSISTANCE OPERATOR (tel. & tel.)]. Calculates and quotes charges on long-distance calls. May make long distance connections and be designated Long-Distance Operator (tel. & tel.).
GOE: 07.04.06 STRENGTH: L GED: R3 M1 L3 SVP: 3 DLU: 77

235.562-010 CLERK, ROUTE (tel. & tel.)
Sorts and routes telegrams received by pickup and delivery section of telegraph office: Folds and places messages in envelopes for delivery. Receives requests for message pickup within area served by telegraph office. Routes messages to customers within city via private telegraph wire or telephone, and to customers in distant cities via telegraphic-typewriter or Morse telegraphy. Reads maps to sort messages and pick-up requests into routes. Dispatches TELEGRAM MESSENGER (tel. & tel.). Receives and records remittances returned for messages picked up. Reads messages for errors.
GOE: 07.05.04 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

235.562-014 SWITCHBOARD OPERATOR, POLICE DISTRICT (government ser.)
Operates switchboard to receive and transmit police communications: Talks to police officers reporting from callboxes and records messages on special forms. Enters time of call and callbox number. Telephones for ambulances or fire-fighting equipment when requested. Routes messages for radio broadcast to DISPATCHER, RADIO (government ser.).
GOE: 07.04.05 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

235.662-010 COMMAND AND CONTROL SPECIALIST (military ser.)
Operates and monitors communication console to receive and relay command and control information or instructions: Observes signal light on communication console and presses switch to open or close communication channel. Receives communiques concerning such items as unknown aircraft, deployment of equipment and troops, or emergency situation. Records message and notifies designated personnel concerning communique, following manual procedures, or presses switch to facilitate direct communication between originator and appropriate action addressee. Relays information to originating source or specified individuals to initiate action to be taken.
GOE: 07.04.05 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

235.662-014 COMMUNICATION-CENTER OPERATOR (air trans.)
Operates airport authority communication systems and monitors electronic equipment alarms: Operates public address system to page passengers or visitors. Operates telephone switchboard to receive or place calls to and from terminal. Operates two-way internal radio system to communicate with departments. Operates terminal courtesy telephone system to communicate with passengers or visitors. Observes electronic monitoring panel to detect serious malfunction of elevators, escalators, shuttle train, fire alarms, emergency doors, heating, air-conditioning, or ventilating systems.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

235.662-018 DIRECTORY-ASSISTANCE OPERATOR (tel. & tel.)
Provides telephone information from cord or cordless central office switchboard: Plugs in headphones when signal light flashes on cord switchboard, or pushes switch keys on cordless switchboard to make connections. Refers to alphabetical or geographical reels or directories to answer questions and suggests alternate locations and spelling under which number could be listed. May type location and spelling of name on computer terminal keyboard, and scan directory or microfilm viewer to locate number. May keep record of calls received. May keep reels and directories up to date.
GOE: 07.04.06 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

235.662-022 TELEPHONE OPERATOR (clerical) alternate titles: control-board operator; pbx operator; private-branch-exchange operator; switchboard operator; telephone-switchboard operator
Operates cord or cordless switchboard to relay incoming, outgoing, and interoffice calls: Pushes switch keys on cordless switchboard to make connections and relay calls. Plugs cord of cord type equipment into switchboard jacks to make connections and relay calls. May supply information to callers and record messages. May keep record of calls placed and toll charges. May perform clerical duties, such as typing, proofreading, and sorting mail. May operate system of bells or buzzers to call individuals in establishment to phone. May receive visitors, obtain name and nature of business, and schedule appointments [RECEPTIONIST (clerical) 237.367-038].
GOE: 07.04.06 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 87

235.662-026 TELEPHONE-ANSWERING-SERVICE OPERATOR (business ser.) alternate titles: interceptor operator; telephone-interceptor operator
Operates cord or cordless switchboard to provide answering service for clients. Greets caller and announces name or phone number of client. Records and delivers messages, furnishes information, accepts orders, and relays calls. Places telephone calls at request of client and to locate client in emergencies. Date stamps and files messages.
GOE: 07.04.06 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

236 TELEGRAPH OPERATORS

This group includes occupations concerned with operating telegraph equipment to transmit and receive signals or messages, including transmitting train-delay reports, train orders, etc. Occupations concerning use of telegraphic typewriters are included in Group 203.

236.252-010 REPRESENTATIVE, PERSONAL SERVICE (tel. & tel.)
Visits agents, tie line customers, and private wire patrons to demonstrate to employees use and operation of telegraph equipment and facilities: Demonstrates use of telegraph equipment and operating procedures. Explains rates and company services. Consults with customers concerning communication needs and suggests methods of eliminating operational difficulties. Suggests modifications of customer's private wire switching equipment. Prepares written reports of services rendered to customers, including descriptions of difficulties encountered. Aids in development and preparation of operating procedures.
GOE: 05.02.06 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 77

236.562-010 TELEGRAPHER (r.r. trans.) alternate titles: telephoner; teletype-telegrapher
Operates telegraph key, Teletype machine, or talks over telephone to transmit and receive train orders and messages: Records time and date messages were received or transmitted. Operates Teletype machine to transmit messages and train orders. Reads messages received and marks for distribution. Informs TRAIN DISPATCHER (r.r. trans.) by telephone of departure of outbound trains from yard or terminal. Replaces rolls of Teletype paper in machine as required.
GOE: 07.04.05 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 77

236.562-014 TELEGRAPHER AGENT (r.r. trans.) alternate titles: station telegrapher
Transmits and receives messages, train orders, and car reports in Morse code, using manual or semiautomatic key: In small railroad station performs duties.

such as selling tickets and forwarding and receiving baggage and freight [BAGGAGE-AND-MAIL AGENT (r.r. trans.); STATION AGENT (r.r. trans.) I]. May move controls to change block signals and semaphores.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

237 INFORMATION AND RECEPTION CLERKS

This group includes occupations primarily concerned with giving information to employers, customers, visitors, or the general public, inquiring in person, or by telephone, regarding such matters as activities of establishment, location of offices within firm, stock quotations, and credit status. It also includes scheduling appointments and keeping records of callers and nature of inquiries. Occupations primarily concerned with interviewing persons to elicit and record information on registrations or other records are found in Group 205.

237.137-010 SUPERVISOR, TELEPHONE INFORMATION (motor trans.)

Supervises and coordinates activities of workers engaged in giving bus service information, by telephone, to callers for motor transportation company: Confers with management and examines past activity records to project staffing, budget, and equipment requirements, performing duties as described under SUPERVISOR (clerical) Master Title. Issues oral and written instructions on schedule changes and rates to keep workers informed and maintain accuracy of information given to public. Monitors telephone conversations between workers and callers to evaluate technical accuracy. Reads telephone operator's meter to determine volume of calls handled and hourly total of lost calls to compile record for planning purposes. Conducts classroom and on-the-job training to maintain and improve service standards. Submits reports, as required, to provide information for accounting department.
GOE: 07.04.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

237.137-014 SUPERVISOR, TRAVEL-INFORMATION CENTER (government ser.)

Supervises and coordinates activities of workers engaged in greeting and welcoming motorists at State Highway Information Center: Provides information, such as directions, road conditions, and vehicular travel regulations. Provides maps, brochures, and pamphlets to assist motorist in locating points of interest or in reaching destination. Performs duties as described under SUPERVISOR (clerical) Master Title. May direct tourists to rest areas, camps, resorts, historical points, or other tourist attractions.
GOE: 07.04.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

237.267-010 INFORMATION CLERK, AUTOMOBILE CLUB (nonprofit org.)

Provides telephone inquirers with information concerning activities and programs of automobile club: Provides information on matters, such as traffic engineering and motor-vehicle safety, applicable motor vehicle laws, licensing regu-ations, automobile insurance and financing, and legal actions. Receives and ecords complaints on road conditions. Participates in traffic surveys. May specialize in assisting members file insurance claims for motor vehicle property damage and be designated Claims And Insurance Information Clerk, Automobile Club (nonprofit org.).
GOE: 07.04.04 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

237.367-010 APPOINTMENT CLERK (clerical) alternate titles: reception clerk

Schedules appointments with employer or other employees for clients or cus-omers by mail, phone, or in person, and records time and date of appointment n appointment book. Indicates in appointment book when appointments have een filled or cancelled. May telephone or write clients to remind them of ap-ointments. May receive payments for services, and record them in ledger. May eceive callers [RECEPTIONIST (clerical)]. May operate switchboard [TELEPHONE OPERATOR (clerical)].
OE: 07.04.04 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

37.367-014 CALL-OUT OPERATOR (business ser.; retail trade)

Compiles credit information, such as status of credit accounts, personal ref-rences, and bank accounts to fulfill subscribers' requests, using telephone. Copies information onto form to update information for credit record on file, r for computer input. Telephones subscriber to relay requested information or ubmits data obtained for typewritten report to subscriber.
OE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 2 DLU: 77

37.367-018 INFORMATION CLERK (motor trans.; r.r. trans.; water trans.) alternate titles: travel clerk

Provides travel information for bus or train patrons: Answers inquiries re-arding departures, arrivals, stops, and destinations of scheduled buses or trains. Describes routes, services, and accommodations available. Furnishes patrons ith timetables and travel literature. Computes and quotes rates for interline ips, group tours, and special discounts for children and military personnel, sing rate tables.
OE: 07.04.04 STRENGTH: L GED: R4 M2 L3 SVP: 2 DLU: 77

37.367-022 INFORMATION CLERK (clerical)

Answers inquiries from persons entering establishment: Provides information regarding activities conducted at establishment, and location of departments, of-ces, and employees within organization. Informs customer of location of store erchandise in retail establishment. Provides information concerning services, such as laundry and valet services, in hotel. Receives and answers requests for information from company officials and employees. May call employees or officials to information desk to answer inquiries. May keep record of questions asked.
GOE: 07.04.04 STRENGTH: S GED: R4 M2 L3 SVP: 4 DLU: 86

237.367-026 LAND-LEASING EXAMINER (government ser.) alternate titles: land-lease-information clerk

Furnishes information to public concerning status of state-owned lands for lease, and assists applicants to file documents required to lease land: Answers public inquiries concerning types of land leases available. Furnishes current information concerning land classification, withdrawals from market, or mineral reservations. Assists applicant in completing required documents. Examines applications, transfers, and supporting documents for conformance with agency specifications. Processes documents, collects fees, and maintains history ledgers of state-owned land.
GOE: 07.04.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

237.367-030 MANAGER, TRAFFIC II (motor trans.)

Quotes freight rates and gives information on truck arrivals to trucking-transportation firm's customers. May investigate and settle claims against firm for damaged, short, or overcharged freight shipments [CUSTOMER-COMPLAINT CLERK (clerical)].
GOE: 07.04.04 STRENGTH: S GED: R3 M2 L2 SVP: 6 DLU: 77

237.367-034 PAY-STATION ATTENDANT (tel. & tel.)

Obtains telephone numbers at pay stations for persons with visual impairment, persons unfamiliar with local telephone exchanges, or others unable to secure satisfactory telephone service. Usually stationed at hotels, military bases, or similar places frequented by strangers. Contacts international operator or direct-dials to place international telephone calls, and collects toll from caller. Periodically verifies operating condition of telephones within facility and advises supervisor of location of malfunctioning equipment.
GOE: 09.04.02 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

237.367-038 RECEPTIONIST (clerical) alternate titles: reception clerk

Receives callers at establishment, determines nature of business, and directs callers to destination: Obtains caller's name and arranges for appointment with person called upon. Directs caller to destination and records name, time of call, nature of business, and person called upon. May operate PBX telephone console to receive incoming messages. May type memos, correspondence, reports, and other documents. May work in office of medical practitioner or in other health care facility and be designated Outpatient Receptionist (medical ser.) or Receptionist, Doctor's Office (medical ser.). May issue visitor's pass when required. May make future appointments and answer inquiries [INFORMATION CLERK (clerical) 237.367-022]. May perform variety of clerical duties [ADMINISTRATIVE CLERK (clerical) 219.362-010] and other duties pertinent to type of establishment. May collect and distribute mail and messages.
GOE: 07.04.04 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 88

237.367-042 REFERRAL-AND-INFORMATION AIDE (government ser.)

Receives callers and responds to complaints in person or by telephone for government agency: Questions callers to ascertain nature of complaints against government agency; records complaint on standard form; and routes form to appropriate department or office for action. Contacts department or office to which complaint was referred to determine disposition. Contacts complainant to verify data and follow-up on results of referral. Compiles complaint records, by category, department office, and disposition. Notifies supervisor of patterns of poor provision of service. Maintains up-to-date reference materials and files.
GOE: 07.04.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

237.367-046 TELEPHONE QUOTATION CLERK (financial) alternate titles: information clerk, brokerage; quote clerk; telephone-information clerk

Answers telephone calls from customers requesting current stock quotations and provides information posted on electronic quote board. Relays calls to REGISTERED REPRESENTATIVE (financial) 250.257-018 as requested by customer. May call customers to inform them of stock quotations.
GOE: 07.04.04 STRENGTH: S GED: R3 M2 L3 SVP: 2 DLU: 77

237.367-050 TOURIST-INFORMATION ASSISTANT (government ser.)

Provides travel information and other services to tourists at State Information Center: Greets tourists, in person or by telephone, and answers questions and gives information on resorts, historical sites, scenic areas, and other tourist attractions. Assists tourists in planning itineraries and advises them of traffic regulations. Sells hunting and fishing licenses and provides information on fishing, hunting, and camping regulations. Composes letters in response to inquiries. Maintains personnel, license-sales, and other records. Contacts motel, hotel, and resort operators by mail or telephone to obtain advertising literature.
GOE: 07.04.04 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

238 ACCOMMODATION CLERKS AND GATE AND TICKET AGENTS

This group includes occupations concerned with planning, scheduling, reserving, or otherwise arranging accommodations, such as transportation, lodging, and recreation, for customers, guests, employees, and government and military personnel, when direct personal or telephone contact is involved. Includes ticket agents engaged in assigning and reserving space, selling tickets, and providing travel information to patrons of transportation agency. Also included in this group are gate agents who check tickets and assist passengers at airports. Travel agents engaged in selling and arranging travel and lodging services on a commission basis are found in Group 252.

238.137-010 MANAGER, RESERVATIONS (hotel & rest.)

Supervises and coordinates activities of workers engaged in taking, recording, and canceling reservations in front office of hotel: Sorts reservations received by mail into current (up to 3 days) and future (over 3 days). Sends futures to reservation center in other hotel of chain. Gives current reservations to clerks for computerization. Receives contracts detailing room allotments for conventions from sales representative and feeds information into terminal. Corresponds with groups and travel agents to answer special requests for rooms and rates. Verifies that daily printouts listing guests' arrivals and individual guest folios are received by ROOM CLERKS (hotel & rest.). Maintains weekly attendance sheet and sends to payroll department. Delegates assistants to train clerks in taking telephone reservations and in operating computer terminals and printers to store and receive reservation data. Reschedules workers to accommodate arrivals of conventions and other groups. Recommmends promotion and discharge of workers to MANAGER, FRONT OFFICE (hotel & rest.). Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.01 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 77

238.137-014 SENIOR RESERVATIONS AGENT (air trans.)

Supervises and coordinates activities of workers engaged in reserving seat space for passengers on scheduled airline flights: Assigns workers to tasks in accordance with abilities and personnel requirements. Observes work procedures, monitors telephone calls, and reviews completed work to ensure adherence to quality and efficiency standards and to rules and regulations. Directs, explains, and demonstrates improved work practices and procedures to attain efficient utilization of personnel. Writes revisions to procedure guides and memoranda describing changes in reservations methods, flight schedules, and rates. Records teletypewriter messages and telephones passenger service personnel to obtain information regarding flight cancellations and schedule changes and to determine disposition of passengers holding reservations on cancelled or rescheduled flights. Posts flight schedule changes and passenger disposition information on bulletin board, and directs staff to telephone passengers to notify of schedule and reservation changes. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

238.137-018 SUPERVISOR, GATE SERVICES (air trans.) alternate titles: senior gate agent

Supervises and coordinates activities of workers engaged in admitting departing passengers to airplanes and assisting passengers disembark at terminal exit of commercial airline: Reviews flight schedules, passenger manifests, and information obtained from staff to ascertain staffing requirements that will ensure efficient passenger embarking and disembarking; and assigns staff accordingly. Observes workers to ensure that services to passengers are performed courteously and correctly. Directs, explains, and demonstrates improved work practices and procedures to attain efficient utilization of human resources. Evaluates work performance of personnel and prepares recommendations for retention, dismissal, transfer, or promotion. Prepares daily personnel and activity reports. May perform tasks of GATE AGENT (air trans.).

GOE: 09.05.04 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

238.137-022 SUPERVISOR, TICKET SALES (air trans.) alternate titles: lead ticket-sales agent; senior passenger agent; senior ticket-sales agent

Supervises and coordinates activities of personnel engaged in selling tickets for scheduled airline flights in airline ticket office or terminal: Instructs and trains agents. Adjusts disputes between customers and agents. Prepares reports, such as volume of ticket sales and cash received. Maintains records on data, such as weight and location of passengers, cargo, and mail to ensure compliance with load specifications. Suggests travel itineraries for customers. May reserve space for passengers [RESERVATIONS AGENT (air trans.)] and sell tickets for scheduled flights [TICKET AGENT (any industry)]. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.03.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

238.167-010 TRAVEL CLERK (government ser.)

Plans itinerary and schedules travel accommodations for military and civilian personnel and dependents according to travel orders, using knowledge of routes, types of carriers, and travel regulations: Verifies travel orders to ensure authorization. Studies routes and regulations and considers cost, availability, and convenience of different types of carriers to select most advantageous route and carrier. Notifies personnel of travel dates, baggage limits, and medical and visa requirements, and determines that all clearances have been obtained. Assists personnel in completing travel forms and other business transactions pertaining to travel. May deliver personnel files and travel orders to persons prior to departure. May meet and inform arriving personnel of available facilities and housing, and furnish other information. May arrange for motor transportation for arriving or departing personnel.

GOE: 07.05.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

238.167-014 TRAVEL COUNSELOR, AUTOMOBILE CLUB (nonprofit org.) alternate titles: touring counselor; traveling clerk

Plans trips for members of automobile club: Confers with member in person or by telephone to answer questions and explain services. Marks suitable roads and possible detours on road map, showing route from point of origin to destination and return. Indicates points of interest, restaurants, hotels or other housing accommodations, and emergency repair services available along route. Reserves hotel, motel, or resort accommodations by telephone, telegraph, or letter. Calculates mileage of marked route and estimates travel expenses. Informs patron of bus, ship, train, and plane connections. Consults hotel directories, road maps, circulars, timetables, and other sources to obtain current information. Provides members with guides, directories, brochures and maps. May plan trips for members in response to mail requests. May plan foreign trips and perform duties, such as arranging for automobile rental, purchase, and shipment, and be designated World-Travel Counselor (nonprofit org.). May review itineraries prepared by other travel counselors for factors such as accuracy, pricing, and date and timetable sequencing and be designated Travel-Ticketing Reviewer (nonprofit org.).

GOE: 07.05.01 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 77

238.362-014 RESERVATION CLERK (clerical) alternate titles: clerk, travel reservations; travel clerk

Obtains travel and hotel accommodations for guests and employees of industrial concern, issues tickets, types itineraries, and compiles reports of transactions: Obtains confirmation of travel and lodging space and rate information. Issues and validates airline tickets from stock or *teleticketer* and obtains rail and bus tickets from carriers. Prepares passenger travel booklet containing tickets, copy of itinerary, written lodging confirmations, pertinent credit cards, and travel suggestions. Keeps current directory of hotels, motels, and timetables, and answers inquiries concerning routes, fares, and accommodations. Reviews routine invoices of transportation charges, and types and submits reports to company and to transportation agencies. Prepares and types claim forms for refunds and adjustments and reports of transactions processed.

GOE: 07.05.01 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

238.367-010 GATE AGENT (air trans.)

Assists passengers and checks flight tickets at entrance gate or station when boarding or disembarking airplane of commercial airline: Examines passenger tickets to ensure that passengers have correct flight or seat, or directs passengers to correct boarding area, using passenger manifest, seating chart, and flight schedules. Verifies names on passenger manifest or separates portions of passenger's ticket and stamps or marks ticket or issues boarding pass to authorize passenger to board airplane. Directs passengers to air-terminal facilities. Opens gate or allows passengers to board airplane. Assists elderly, disabled, or young passengers to board or depart from airplane, such as moving passengers in wheelchairs. May announce flight information, using public-address system. May post flight information on flight board.

GOE: 09.05.04 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

238.367-014 RESERVATION CLERK (r.r. trans.)

Receives requests for and assigns space on trains to passengers on railroad passenger trains. Accepts requests for space assignments and examines diagram charts of each car on train to verify available space on specified train. Informs STATION AGENTS (r.r. trans.) I or INFORMATION CLERKS (clerical) of available space. Marks blocks on diagram to indicate that space is reserved. Prepares Teletype requests to other interline carriers to complete passage. Informs STATION AGENTS (r.r. trans.) I and INFORMATION CLERKS (clerical) upon completion of booking arrangements. Informs RESERVATION CLERKS (r.r. trans.) at other cities and towns of space reserved or space remaining available.

GOE: 07.05.01 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

238.367-018 RESERVATIONS AGENT (air trans.) alternate titles: telephone-sales agent

Makes and confirms reservations for passengers on scheduled airline flights: Arranges reservations and routing for passengers at request of TICKET AGENT (any industry) 238.367-026 or customer, using timetables, airline manuals, reference guides, and tariff book. Types requested flight number on keyboard of on-line computer reservation system and scans screen to determine space availability. Telephones customer or TICKET AGENT (any industry) to advise of changes in flight plan or to cancel or confirm reservation. May maintain advance or current inventory of available passenger space on flights. May advise load control personnel and other stations of changes in passenger itinerary to control space and ensure utilization of seating capacity on flights.

GOE: 07.04.03 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 82

238.367-022 SPACE SCHEDULER (clerical) alternate titles: conference service coordinator

Compiles lists of individuals or groups requesting space for activities in business establishment or institution and schedules needed facilities: Receives requests from company officials, staff, students, and community groups requiring space for activities. Consults charts and records to determine space availability for dates and times requested. Determines suitability of space for requested activities, such as sales meetings, lectures, film screenings, musical programs, and laboratory work, and assigns conference rooms, lecture halls, and other facilities. Notifies program participants of location assigned. Maintains schedules and records of available space, space used, and cancellations. May requisition needed equipment, such as audiovisual aids, music stands, and additional seats. May arrange for cleaning of rooms after use.

GOE: 07.05.01 STRENGTH: S GED: R4 M2 L3 SVP: 4 DLU: 77

238.367-026 TICKET AGENT (any industry) alternate titles: passenger agent; passenger-booking clerk; reservation clerk; ticket clerk; ticket seller

Sells tickets for transportation agencies, such as airlines, bus companies (other than city buses), railroads (other than street railways), and steamship lines: Plans route and computes ticket cost, using schedules, rate books, and computer terminals. Ensures that cabins, seats, or space is available. Answers inquiries regarding airplane, train, bus, or boat schedules and accommodations. May check baggage and direct passenger to designated concourse, pier, or track for loading. May make public address announcements of arrivals and departures. May sell travel insurance.

GOE: 07.03.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 80

238.367-030 TRAVEL CLERK (hotel & rest.) alternate titles: transportation clerk

Provides travel information and arranges accommodations for tourists: Answers inquiries, offers suggestions, and provides descriptive literature pertaining to trips, excursions, sports events, concerts, and plays. Discusses routes, time schedules, rates, and types of accommodations with patrons to determine preferences and makes reservations. Verifies arrival and departure times, traces routes on maps, and arranges for baggage handling and other services requested by guests. May deliver tickets. May arrange for visas and other documents required by foreign travelers. May contact individuals and groups to inform them of package tours.

GOE: 07.04.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

238.367-034 SCHEDULER (museums) alternate titles: education department registrar; museum service scheduler

Makes reservations and accepts payment for group tours, classes, field trips, and other educational activities offered by museum, zoo, or similar establishment: Provides information regarding tours for school, civic, or other groups, suggests tours on institution calendar, and contacts group leaders prior to scheduled dates to confirm reservations. Provides information regarding classes, workshops, field trips, and other educational programs designed for such special groups as school or college students, teachers, or handicapped persons. Registers groups and individuals for participation in programs, enters registration information in department records, and contacts participants prior to program dates to confirm registration and provide preparatory information. Prepares lists of groups scheduled for tours and persons registered for other activities for use of DIRECTOR, EDUCATION (museums) 099.117-030 or other personnel. Collects and records receipts of fees for tours, classes, and other activities. Maintains records of participating groups, fees received, and other data related to educational programs for use in preparation of department reports. May take reservations and sell advance tickets to exhibits, concerts, and other events sponsored by institution, prepare periodic summaries of department activities for review by administrative personnel, or arrange for various support services to facilitate presentation of special activities.

GOE: 07.05.01 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 86

238.367-038 HOTEL CLERK (hotel & rest.) alternate titles: motel clerk; motor-lodge clerk

Performs any combination of following duties for guests of hotel or motel: Greets, registers, and assigns rooms to guests. Issues room key and escort instructions to BELLHOP (hotel & rest.) 324.677-010. Date-stamps, sorts, and racks incoming mail and messages. Transmits and receives messages, using telephone or telephone switchboard. Answers inquiries pertaining to hotel services; registration of guests; and shopping, dining, entertainment, and travel directions. Keeps records of room availability and guests' accounts, manually or using computer. Computes bill, collects payment, and makes change for guests [CASHIER (clerical) I 211.362-010]. Makes and confirms reservations. May post charges, such as room, food, liquor, or telephone, to ledger, manually or using computer [BOOKKEEPER (clerical) 210.382-014]. May make restaurant, transportation, or entertainment reservation, and arrange for tours. May deposit guests' valuables in hotel safe or safe-deposit box. May order complimentary flowers or champagne for guests. May rent dock space at marina-hotel. May work on one floor and be designated Floor Clerk (hotel & rest.). May be known as Key Clerk (hotel & rest.); Reservation Clerk (hotel & rest.); Room Clerk (hotel & rest.) or according to specific area in which employed as Front Desk Clerk (hotel & rest.).

GOE: 07.04.03 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 81

239 INFORMATION AND MESSAGE DISTRIBUTION OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with distribution of information and messages by direct personal or telephone contact.

239.132-010 SUPERVISOR, TELEPHONE CLERKS (tel. & tel.) alternate titles: telephone supervisor

Supervises and coordinates activities of TELEPHONE CLERKS, TELEGRAPH OFFICE (tel. & tel.) engaged in relaying telegraph and radio messages by telephone, performing duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.04.06 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 77

239.137-010 COMMERCIAL-INSTRUCTOR SUPERVISOR (tel. & tel.; utilities; waterworks)

Supervises and coordinates activities of CUSTOMER-SERVICE-REPRESENTATIVE INSTRUCTORS (tel. & tel.; utilities; waterworks): Confers with department managers to determine training needs. Determines training requirements and assists instructors in securing required training aids and scheduling classroom space. Assigns instructors to teach subjects, such as principles of supervision, customer interviewing techniques, account collection, and processing of service and repair orders. Monitors (audits) classes to determine effectiveness of instruction and suggests methods designed to improve training program. Performs duties as described under SUPERVISOR (clerical) Master Title. Maintains records and compiles reports of training activities as required.

GOE: 11.07.03 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

239.137-014 CUSTOMER SERVICE REPRESENTATIVE SUPERVISOR (radio-tv broad.: tel. & tel.; utilities; waterworks)

Supervises and coordinates activities of CUSTOMER SERVICE REPRESENTATIVES (radio-tv broad.; tel. & tel.; utilities; waterworks) 239.362-014 engaged in handling service orders and telephone complaints of customers: Monitors service calls [SERVICE OBSERVER (tel. & tel.) 239.367-026] to observe employee's demeanor, technical accuracy, and conformity to company policies. Recommends corrective services to adjust customer complaints. Answers questions about service. Keys information into computer to compile work volume statistics for accounting purposes and to keep records of customer service requests and complaints. Checks accounting ledger and order postings for errors. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.04.01 STRENGTH: S GED: R4 M2 L3 SVP: 6 DLU: 88

239.137-018 ROUTE SUPERVISOR (tel. & tel.)

Supervises and coordinates activities of workers engaged in routing telegraph messages, such as CLERKS, ROUTE (tel. & tel.) and ROUTE AIDES (tel. & tel.), performing duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.04 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

239.137-022 SERVICE OBSERVER, CHIEF (tel. & tel.) alternate titles: monitor chief

Supervises and coordinates activities of group of SERVICE OBSERVERS (tel. & tel.) in telegraph office. Performs duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.04.05 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

239.137-026 SUPERVISOR, PUBLIC MESSAGE SERVICE (tel. & tel.) alternate titles: traffic controller, cable

Supervises and coordinates activities of workers involved in local distribution and transmission of international message traffic: Directs and controls movement of traffic. Examines messages before transmission for proper routing and censorship marks and determines that no international regulations have been violated. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

239.167-010 COMMUNICATIONS COORDINATOR (medical ser.)

Coordinates telephone communications services in hospital: Confers with administrative personnel to determine hospital requirements for communications equipment, such as switchboards, public-address paging systems, and extension telephones. Determines equipment to be installed, based on anticipated volume of calls, and knowledge of available equipment. Writes instruction and procedure manuals for switchboard operation and training, applying knowledge of hospital procedures, departmental functions, and equipment. Determines methods of improving telephone service from discussions with supervisory personnel, observation of switchboard operations, and analysis of service complaints. Arranges with telephone company personnel for special training of workers, as necessary. May estimate telephone services costs for use in preparing hospital budget. May prepare records and reports for management, concerning telephone services.

GOE: 05.03.05 STRENGTH: S GED: R4 M3 L3 SVP: 7 DLU: 77

239.167-014 DISPATCHER (tel. & tel.) alternate titles: cable dispatcher

Establishes and reroutes telegraph and submarine cable circuits to ensure flow of messages: Orders irregular routing of telegrams to prevent congestion or wire shortage. Receives reports of delays in transmission of messages, and issues orders to facilitate transmission. Directs flow of messages during emergencies, such as storms, floods, and fires.

GOE: 07.04.05 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

239.227-010 CUSTOMER-SERVICE-REPRESENTATIVE INSTRUCTOR (tel. & tel.; utilities; waterworks)

Conducts classroom and on-the-job training for CUSTOMER-SERVICE REPRESENTATIVES (tel. & tel.; utilities; waterworks): Instructs employees on company policies, systems, and routines for handling customer service requests, following prescribed training program. Explains service forms and company procedures, using training aids, such as tape recorder, motion picture films, and slides. Listens to or takes recordings of trainees handling customer service calls to detect errors. Discusses errors and problems to improve techniques in handling calls.

GOE: 07.04.02 STRENGTH: S GED: R4 M2 L3 SVP: 6 DLU: 77

239.267-010 PLACER (insurance)

Advises clients of broker (independent agent) in selecting casualty, life, or property insurance: Discusses advantages and disadvantages of various policies to help client make choice. Selects company that offers type of coverage requested by client to underwrite policy. Contacts underwriter and submits forms to obtain binder coverage. Contacts company to determine if policy was issued or rejected.
GOE: 08.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

239.362-010 TELEPHONE CLERK, TELEGRAPH OFFICE (tel. & tel.) alternate titles: clerk-operator

Relays telegraph and radio messages by telephone: Calls addressee, using telephone directories and card indexes to locate telephone number. Reads message and spells misunderstood words, using phonetic alphabet. Solicits reply to promote sale of services. Records message to be sent, using pen, pencil, or typewriter. Suggests rewording, if necessary, for clarity and conciseness. Quotes rates, explains classifications, and reads sample messages to aid customer in preparing message. Counts message units, reads rates in rate book, and records rate on customer bill. May operate telephone switchboard equipment.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

239.362-014 CUSTOMER SERVICE REPRESENTATIVE (radio-tv broad.; tel. & tel.; utilities; waterworks) alternates titles: adjustment clerk; application clerk; order clerk; outside contact clerk; service representative

Interviews applicants and records interview information into computer for water, gas, electric, telephone, or cable television system service: Talks with customers by phone or in person and receives orders for installation, turn-on, discontinuance, or change in service. Fills out contract forms, determines charges for service requested, collects deposits, prepares change of address records, and issues discontinuance orders, using computer. May solicit sale of new or additional services. May adjust complaints concerning billing or service rendered, referring complaints of service failures, such as low voltage or low pressure, to designated departments for investigation. May visit customers at their place of residence to investigate conditions preventing completion of service-connection orders and to obtain contract and deposit when service is being used without contract. May discuss cable television equipment operation with customer over telephone to explain equipment usage and to troubleshoot equipment problems.
GOE: 07.04.01 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 88

239.367-014 DISPATCHER, MAINTENANCE SERVICE (clerical) alternate titles: dispatcher; maintenance clerk

Receives telephone and written orders from plant departments for maintenance service, such as repair work, machine adjustments, and renewals or installation of other plant property, and relays requests to appropriate maintenance division. Keeps record of requests and services rendered. Requisitions supplies for maintenance and clerical workers.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

239.367-018 MAIL-DISTRIBUTION-SCHEME EXAMINER (government ser.) alternate titles: scheme examiner

Devises and conducts tests that indicate knowledge of postal clerks concerning city, state, and regional addresses and tests skill in placing mail into designated boxes. Conducts and scores tests and forwards results to personnel department. Instructs postal clerks on distribution scheme requirements. Reviews and revises distribution schemes.
GOE: 07.01.07 STRENGTH: S GED: R4 M2 L4 SVP: 5 DLU: 77

239.367-022 RECEIVER-DISPATCHER (nonprofit org.) alternate titles: service aide

Receives and records requests for emergency road service from automobile club members, and dispatches tow truck or service truck to stranded vehicle: Answers telephone and obtains and records on road service card such information as name of club member, location of disabled vehicle, and nature of vehicle malfunction. Routes card to dispatch station, or relays information to service station or tow truck in motorist's vicinity, using telephone or two-way radio. May locate site of stranded vehicle, using maps. May maintain file of road service cards.
GOE: 07.04.05 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

239.367-026 SERVICE OBSERVER (tel. & tel.) alternate titles: monitor; observer

Monitors telephone conversations or telegraph messages between operators, business office employees, and subscribers to observe employees' demeanor, technical accuracy, and conformity to company policies. Plugs headphones into switchboard, listens to conversations, and records errors. Submits lists of errors to supervisors for remedial action.
GOE: 07.04.05 STRENGTH: L GED: R4 M2 L4 SVP: 4 DLU: 77

239.367-030 DISPATCHER, STREET DEPARTMENT (government ser.)

Receives and records public requests for street maintenance services, and relays work orders to maintenance crews, using telephone and two-way radio: Receives telephone requests from public for services, such as street repair, repair of traffic signals, erection of traffic barricades, and snow removal. Relays work orders, messages, and information to or from work crews, supervisors, and field inspectors. Answers routine questions from public and directs requests for other information to designated personnel. Maintains daily log of work orders, messages, or reports received and relayed.
GOE: 07.04.05 STRENGTH: S GED: R3 M1 L2 SVP: 3 DLU: 86

239.367-034 UTILITY CLERK (utilities)

Responds to telephone requests for information concerning location of underground utility distribution lines: Informs construction contractors and others excavating near company installations of buried line locations to prevent safety hazards and damage to company equipment, utilizing plat and distribution line maps. Updates maps to indicate extensions and revisions of utility distribution lines within specified jurisdiction. May relay telephone reports of gas emergencies to specified personnel [GAS-DISTRIBUTION-AND-EMERGENCY CLERK (utilities) 249.367-042] or radio customer service requests to mobile service crews, using two-way radio. May issue tools and parts used by company work crews [STOCK CLERK (clerical) 222.387-058].
GOE: 07.04.05 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 86

239.382-010 WIRE-PHOTO OPERATOR, NEWS (print. & pub.) alternate titles: telephoto operator

Operates news wirephoto machine to transmit syndicated news photographs over telecommunication wires to newspapers and magazines: Inserts developed photographic print in camera chamber equipped with electric eye which scans and transmits photographs over transcontinental telephone or telegraph wires. Adjusts controls to coordinate machine processes involving detecting, screening, and converting photographic highlights and shadows into sound signals for wire transmission. May operate machine to receive news photographs. May develop film and print positives.
GOE: 05.10.05 STRENGTH: S GED: R4 M2 L3 SVP: 5 DLU: 77

239.567-010 OFFICE HELPER (clerical)

Performs any combination of following duties in business office of commercial or industrial establishment: Furnishes workers with clerical supplies. Opens, sorts, and distributes incoming mail, and collects, seals, and stamps outgoing mail. Delivers oral or written messages. Collects and distributes paperwork, such as records or timecards, from one department to another. Marks, tabulates, and files articles and records. May use office equipment, such as envelope-sealing machine, letter opener, record shaver, stamping machine, and transcribing machine. May deliver items to other business establishments [DELIVERER, OUTSIDE (clerical) 230.663-010]. May specialize in delivering mail, messages, documents, and packages between departments of establishment and be designated Messenger, Office (clerical). May deliver stock certificates and bonds within and between stock brokerage offices and be designated Runner (financial).
GOE: 07.07.03 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 81

239.677-010 MESSENGER, COPY (print. & pub.) alternate titles: proof runner

Delivers and illustration material to and from advertisers and other outside agencies and within office. May read competitors' publications, clip items or stories not printed in own publication, and submit clippings to editor.
GOE: 07.07.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

239.687-010 ROUTE AIDE (tel. & tel.)

Delivers messages to and from conveyor belts, terminals, tube locations, and other transmitting points within telegraph office. May microfilm copies of telegrams, using automatic microfilming equipment. May search for and retrieve messages stuck in equipment between transmitting points.
GOE: 07.07.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

239.687-014 TUBE OPERATOR (clerical) alternate titles: pneumatic-tube operator; tube clerk; tube dispatcher; tube-station attendant

Receives and routes messages through pneumatic-tube system: Opens incoming pneumatic-tube carriers containing items, such as mail correspondence, bills, and receipts. Reads and sorts items according to department. Inserts items into carriers, and carriers into tube system, and routes to specified locations.
GOE: 07.07.02 STRENGTH: S GED: R2 M1 L2 SVP: 2 DLU: 77

24 MISCELLANEOUS CLERICAL OCCUPATIONS

This division includes miscellaneous occupations concerned with clerical work.

241 INVESTIGATORS, ADJUSTERS, AND RELATED OCCUPATIONS

This group includes occupations concerned with investigating and making determinations pertaining to such matters as the eligibility or qualifications of applicants for insurance, credit, or employment; adjustment of insurance claims; and resolution of customer complaints. This group also includes occupations concerned with activities, such as locating persons and arranging for payment of debts and repossessing merchandise. Occupations concerned with interviewing persons and taking applications, registrations, or public opinion surveys without making determinations regarding information elicited are found in Group 205.

241.137-010 SUPERVISOR, CREDIT AND LOAN COLLECTIONS (clerical)

Supervises and coordinates activities of workers engaged in collecting overdue payments for charge accounts, credit card accounts, or loans from cus-

tomers of banks, loan companies, department stores, oil companies, or other credit-card-issuing companies: Reviews delinquent account records to determine which customers must be contacted for collection of overdue accounts. Organizes collection work load according to degree and amount of delinquency and assigns accounts to workers for collection. Writes letters or approves form letters for use in collection attempts. Recommends telephone techniques used by COLLECTOR (clerical) 241.367-010. Verifies accuracy of accounts, using calculator and computer. Authorizes or refers accounts to manager for repossession and legal actions against debtors. May assist subordinates with collection activities in difficult cases. May supervise and coordinate activities of clerical workers in related activities. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.04.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 89

241.137-014 SUPERVISOR, CUSTOMER-COMPLAINT SERVICE (clerical)
Supervises and coordinates activities of workers engaged in resolving customer problems and complaints concerning matters, such as merchandise, service, and billing: Reviews customer-complaint correspondence, notes any suggestions, and assigns complaint to CUSTOMER-COMPLAINT CLERK (clerical) 241.367-014 for action. Advises subordinates on handling difficult customer complaints, or may handle complaint personally. Confers with other supervisory or managerial personnel to recommend changes in order to avoid recurring customer complaints. May explain to customer by telephone or letter action taken on complaint. May follow up with customer to see that complaint was satisfactorily resolved. May be designated according to type of problem as Supervisor, Lost and Found (air trans.; motor trans.). Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.04.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 88

241.137-018 SUPERVISOR, CLAIMS (insurance) alternate titles: claims administrator
Supervises and coordinates activities of workers engaged in examining insurance claims for payment in claims division of insurance company: Analyzes and approves insurance and matured endowment claims. Conducts personal interviews with policy owners and beneficiaries to explain procedure for filing claims. Submits statement of claim liabilities to actuarial department for review. Informs departmental supervisors on claims status. Evaluates job performance of subordinates. Performs duties described under SUPERVISOR (clerical) Master Title.
GOE: 11.12.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 86

241.217-010 CLAIM ADJUSTER (business ser.; insurance) alternate titles: insurance adjustor; insurance-claim representative; insurance investigator
Investigates claims against insurance or other companies for personal, casualty, or property loss or damages and attempts to effect out-of-court settlement with claimant: Examines claim form and other records to determine insurance coverage. Interviews, telephones, or corresponds with claimant and witnesses; consults police and hospital records; and inspects property damage to determine extent of company's liability, varying method of investigation according to type of insurance. Prepares report of findings and negotiates settlement with claimant. Recommends litigation by legal department when settlement cannot be negotiated. May attend litigation hearings. May be designated according to type of claim adjusted as Automobile-Insurance-Claim Adjuster (business ser.; insurance); Casualty-Insurance-Claim Adjuster (clerical); Fidelity-And-Surety-Bonds-Claim Adjuster (business ser.; insurance); Fire-Insurance-Claim Adjuster (business ser.; insurance); Marine-Insurance-Claim Adjuster (business ser.; insurance); Property-Loss-Insurance-Claim Adjuster (clerical).
GOE: 11.12.01 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 77

241.267-010 AGENT-CONTRACT CLERK (insurance) alternate titles: contract administrator
Evaluates character and ability of prospective agents, and approves their contracts to sell insurance for company: Reviews prospect's application for employment, inspection report, and recommendations to evaluate applicant's character and qualifications. Approves contract if applicant meets company requirements. Corresponds with agency to explain rejection of prospect. Sends application and fee for license to licensing agency. Notifies licensing agency of agent's contract termination. May prepare bulletins to inform insurance agency personnel of revisions in company practices and procedures.
GOE: 07.01.05 STRENGTH: S GED: R5 M1 L4 SVP: 5 DLU: 77

241.267-014 APPRAISER, AUTOMOBILE DAMAGE (business ser.; insurance) alternate titles: automobile-damage appraiser; estimator, automobile damage
Appraises automobile or other vehicle damage to determine cost of repair for nsurance claim settlement and attempts to secure agreement with automobile epair shop on cost of repair: Examines damaged vehicle to determine extent f structural, body, mechanical, electrical, or interior damage. Estimates cost of abor and parts to repair or replace each item of damage, using standard automotive labor and parts cost manuals and knowledge of automotive repair. Deermines salvage value on total-loss vehicle. Evaluates practicality of repair as pposed to payment of market value of vehicle before accident. Prepares insurnce forms to indicate repair-cost estimates and recommendations. Reviews reair-cost estimates with automobile-repair shop to secure agreement on cost of epairs. Occasionally arranges to have damage appraised by another appraiser o resolve disagreement with repair shop on repair cost.
GOE: 11.12.01 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

241.267-018 CLAIM EXAMINER (business ser.; insurance) alternate titles: insurance-claim approver; insurance-claim auditor
Analyzes insurance claims to determine extent of insurance carrier's liability and settles claims with claimants in accordance with policy provisions: Compares data on claim application, death certificate, or physician's statement with policy file and other company records to ascertain completeness and validity of claim. Corresponds with agents and claimants or interviews them in person to correct errors or omissions on claim forms, and to investigate questionable entries. Pays claimant amount due. Refers most questionable claims to INVESTIGATOR (clerical) or to CLAIM ADJUSTER (business ser.; insurance) for investigation and settlement. May investigate claims in field. May be designated according to type of claim handled as Accident-And-Health-Insurance-Claim Examiner (insurance); Automobile-Insurance-Claim Examiner (business ser.; insurance); Death-Claim Examiner (insurance); Disability-Insurance-Claim Examiner (insurance); Fire-Insurance-Claim Examiner (business ser.; insurance); Marine-Insurance-Claim Examiner (business ser.; insurance).
GOE: 11.12.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

241.267-022 CREDIT ANALYST (clerical)
Analyzes paying habits of customers who are delinquent in payment of bills and recommends action: Reviews files to select delinquent accounts for collection efforts. Evaluates customer records and recommends that account be closed, credit limit reduced or extended, or collection attempted, based on earnings and savings data, payment history, and purchase activity of customer. Confers with representatives of credit associations and other businesses to exchange information concerning credit ratings and forwarding addresses. Interviews customers in person or by telephone to investigate complaints, verify accuracy of charges, or to correct errors in accounts [BILL ADJUSTER (clerical)].
GOE: 07.01.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

241.267-026 DEPOSIT CLERK (utilities)
Interviews commercial or industrial applicants for gas or electric-power service to determine amount of cash deposit required as guaranty against loss and to approve refund or waiver of deposits: Studies service rates to estimate applicants' service bill, considering such factors as type of business, previous bills at same address, and estimates of load from reports by contractors or information obtained regarding motor sizes, capacities and hours of operation. Investigates credit standing [CREDIT CLERK (clerical)] and approves or disapproves requests. Investigates credit standing of persons given as guarantors. Approves refunds on checks made out in excess of payment and requests for allowance of discounts on bills. Receives cash deposits and issue receipts.
GOE: 07.01.04 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

241.267-030 INVESTIGATOR (clerical)
Investigates persons or business establishments applying for credit, employment, insurance, loans, or settlement of claims: Contacts former employers, neighbors, trade associations, and others by telephone or in person, to verify employment record and to obtain health history and history of moral and social behavior. Examines city directories and public records to verify residence history, convictions and arrests, property ownership, bankruptcies, liens, and unpaid taxes of applicant. Obtains credit rating from banks and credit services. Analyzes information gathered by investigation and prepares reports of findings and recommendations, using typewriter or computer. May interview applicant on telephone or in person to obtain other financial and personal data to complete report. May be designated according to type of investigation as Credit Reporter (business ser.); Insurance Application Investigator (insurance).
GOE: 11.06.03 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 81

241.267-034 INVESTIGATOR, UTILITY-BILL COMPLAINTS (utilities) alternate titles: customer-service representative
Investigates customers' bill complaints for gas and electric-power service: Examines weather reports for weather conditions during billing period that might have contributed to increased use of service. Examines meter reading schedules to determine if early readings increased billing period. Reviews meter books, microfilm, computer printouts, and machine accounting records for errors causing high bill. Orders tests to detect meter malfunctions. Confers with customer in person, by telephone, or dictates correspondence to explain reasons for high bill. Prepares forms required for correction of meter reading or billing errors.
GOE: 07.05.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

241.357-010 COLLECTION CLERK (clerical) alternate titles: delinquent-account clerk; past-due-accounts clerk
Notifies or locates customers with delinquent accounts and attempts to secure payment, using postal services, telephone, or personal visit: Mails form letters to customers to encourage payment of delinquent accounts. Confers with customer by telephone in attempt to determine reason for overdue payment, reviewing terms of sales, service, or credit contract with customer. Notifies credit department if customer fails to respond. Contacts delinquent account customers in person [COLLECTOR (clerical) 241.367-010]. Records information about financial status of customer and status of collection efforts. May order repossession or service disconnection, or turn over account to attorney. May sort and file correspondence. May receive payments and post amount paid to customer account. May grant extensions of credit. May use automated telephone dialing system to contact customers and computer to record customer account information. May void sales tickets for unclaimed c.o.d. and lay-away merchandise.

May trace customer to new address by inquiring at post office or by questioning neighbors [SKIP TRACER (clerical) 241.367-026]. May attempt to repossess merchandise, such as automobile, furniture, and appliances when customer fails to make payment [REPOSSESSOR (clerical) 241.367-022]. May be designated according to type of establishment as Bank-Credit-Card-Collection Clerk (financial); Department-Store-Collection Clerk (retail trade); Hospital Collection Clerk (medical ser.); Utility-Bill-Collection Clerk (clerical).
GOE: 07.04.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 88

241.362-010 CLAIMS CLERK I (insurance)

Reviews insurance-claim forms for completeness; secures and adds missing data; and transmits claims for payment or further investigation: Reviews insurance-claim forms and related documents for completeness; calls or writes insured or other involved persons for missing information; and posts or attaches information to claim file. Reviews insurance policy to determine coverage. Calculates amount of claim, using desk calculator. Transmits routine claims for payment or advises claims supervisor if further investigation is indicated.
GOE: 07.05.02 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 77

241.367-010 COLLECTOR (clerical) alternate titles: bill collector; collection agent; outside collector

Locates customers to collect installments or overdue accounts, damage claims, or nonpayable checks: Visits or phones customer and attempts to persuade customer to pay amount due or arranges for payment at later date. Questions neighbors and postal workers at post office to determine new address of customers. May have service discontinued or merchandise repossessed. Keeps record of collections and status of accounts. May deliver bills. May sell insurance or other service. May be designated according to type of collection as Claims Collector (clerical); Insurance Collector (insurance); Utility-Bill Collector (clerical).
GOE: 07.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 81

241.367-014 CUSTOMER-COMPLAINT CLERK (clerical) alternate titles: adjustment clerk; consumer-relations-complaint clerk

Investigates customer complaints about merchandise, service, billing, or credit rating: Examines records, such as bills, computer printouts, microfilm, meter readings, bills of lading, and related documents and correspondence, and converses or corresponds with customer and other company personnel, such as billing, credit, sales, service, or shipping, to obtain facts regarding customer complaint. Examines pertinent information to determine accuracy of customer complaint and to determine responsibility for errors. Notifies customer and designated personnel of findings, adjustments, and recommendations, such as exchange of merchandise, refund of money, credit of customer's account, or adjustment of customer's bill. May recommend to management improvements in product, packaging, shipping methods, service, or billing methods and procedures to prevent future complaints of similar nature. May examine merchandise to determine accuracy of complaint. May follow up on recommended adjustments to ensure customer satisfaction. May key information into computer to obtain computerized records. May trace missing merchandise and be designated Tracer Clerk (clerical). May investigate overdue and damaged shipments or shortages in shipments for common carrier and be designated Over-Short-And-Damage Clerk (clerical). May be designated according to type of complaint adjusted as Bill Adjuster (clerical); Merchandise-Adjustment Clerk (retail trade); Service Investigator (utilities; tel. & tel.).
GOE: 07.05.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 89

241.367-018 LOAN INTERVIEWER, MORTGAGE (financial) alternate titles: loan officer

Interviews applicants applying for mortgage loans: Interviews loan applicants to document income, debt, and credit history. Requests documents, such as income tax return, bank account number, purchase agreement, and property description, for verification. Determines if applicant meets establishment standards for further consideration, following manual and using calculator. Informs applicant of closing costs, such as appraisal, credit report, and notary fees. Answers applicant's questions and asks for signature on information authorization forms. Submits application forms to MORTGAGE LOAN PROCESSOR (financial) 249.362-022 for verification of application information. Calls applicant or other persons to resolve discrepancies, such as credit report showing late payment history. Informs applicant of loan denial or acceptance. May visit establishments, such as branch banks, credit unions, real estate brokers, and builders, to promote mortgage service. May work on commission basis.
GOE: 07.04.01 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 89

241.367-022 REPOSSESSOR (clerical)

Locates debtors and solicits payment for delinquent accounts and removes merchandise for nonpayment of account. May initiate repossession proceedings. May drive truck to return merchandise to creditor. May locate, enter, and start vehicle being repossessed, using special tools, if key cannot be obtained from debtor, and return vehicle to creditor. May be designated according to merchandise repossessed as Automobile Repossessor (clerical).
GOE: 04.02.03 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

241.367-026 SKIP TRACER (clerical) alternate titles: debtor; tracer

Traces skips (debtors who change residence without notifying creditors to evade payment of bills) for creditors or other concerned parties: Searches city and telephone directories, and street listings, and inquires at post office. Interviews, telephones, or writes former neighbors, stores, friends, relatives, and former employers to elicit information pertaining to whereabouts of skips. Follows up each lead and prepares report of investigation to creditor. May trace individuals for purposes of serving legal papers. May contact debtors by mail or phone to attempt collection of money owed [COLLECTION CLERK (clerical)].
GOE: 07.04.01 STRENGTH: S GED: R4 M2 L4 SVP: 4 DLU: 77

241.367-030 THROW-OUT CLERK (retail trade) alternate titles: charge-account identification clerk

Processes records of department-store transactions which cannot be applied to customer's account by routine procedures in order that charges, cash payments, and refunds may be recorded, collected, or credited: Reviews and talks to sales-audit, charge-account-authorization, and collection personnel to identify missing information or compare signatures on sales or credit slips. Telephones or writes to customers for additional information. Corrects or adds information to customer accounts as necessary. Mails dunning correspondence to customers in arrears on their charge accounts [COLLECTION CLERK (clerical)].
GOE: 07.05.02 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

241.367-034 TIRE ADJUSTER (retail trade)

Examines defective tires and tubes returned by customers to determine allowance due on replacement: Visually and tactually examines tire to determine if defect resulted from faulty construction or curing. Measures tread depth, using tread depth gauge, to determine remaining tire life. Prorates allowances based on tread wear, warranty provisions, and knowledge of tire characteristics. Explains basis for allowance to customer, sales representative, or distributor. May train new workers.
GOE: 05.09.01 STRENGTH: M GED: R3 M3 L2 SVP: 3 DLU: 77

241.367-038 INVESTIGATOR, DEALER ACCOUNTS (financial) alternate titles: floor plan adjuster

Visits dealers to verify purchases financed by bank against physical inventory of merchandise: Reviews computer printouts listing customer names, addresses, and descriptions of merchandise financed through bank credit and chattel mortgage accounts to plan itinerary of unannounced visits to dealer premises. Explains purpose of visit and locates merchandise in areas, such as showroom, storage room, or car lot. Observes features of merchandise, such as size, color, model, and serial number, to verify item against computer printout. Examines records and questions dealer to determine disposition of items missing from inventory and to elicit information on dealer arrangement for payment to bank for merchandise sold. Records findings on printout and notifies supervisor of unusual findings.
GOE: 07.05.02 STRENGTH: L GED: R4 M3 L4 SVP: 2 DLU: 89

241.367-042 PROPERTY-ASSESSMENT MONITOR (government ser.)

Gathers property assessment data at owner premises, verifies data against previously recorded data, and records discrepancies: Visits property, observes premises, and confers with owner to collect and verify property assessment data, using data cards (property assessment records) as guides. Measures and records size of land boundaries and house, using tape measure. Records type of exterior coverings and physical condition of exterior and interior of house. Counts and records number of bathrooms, stoves, and fireplaces. Verifies findings against recorded data and notes discrepancies. Occasionally attends town meetings to answer taxpayer questions regarding use of information contained on data cards.
GOE: 07.05.02 STRENGTH: L GED: R4 M4 L4 SVP: 3 DLU: 86

241.387-010 CLAIMS CLERK (auto. mfg.)

Examines and processes automotive warranty claims from dealers requesting reimbursement for defective parts, using computerized records system. Reviews claims for completeness, and determines if expenses comply with established policies. Completes reports for further action or returns incomplete claims to dealers for additional data.
GOE: 07.05.02 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 90

243 GOVERNMENT SERVICE CLERKS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with performing clerical duties for federal, state, county, city, or town governments.

243.137-010 SUPERVISOR, MAILS (government ser.) alternate titles: post-office supervisor

Supervises and coordinates activities of workers processing mail in post office. Keeps records of processed mail, mail in process, and changes in worker assignments. May analyze and recommend changes in distribution schemes. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.05.04 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

243.362-010 COURT CLERK (government ser.)

Performs clerical duties in court of law: Prepares docket or calendar of cases to be called, using typewriter. Examines legal documents submitted to court for adherence to law or court procedures, prepares case folders, and posts, files, or routes documents. Explains procedures or forms to parties in case. Secures information for judges, and contacts witnesses, attorneys, and litigants to obtain information for court, and instructs parties when to appear in court. Notifies district attorney's office of cases prosecuted by district attorney. Administers oath to witnesses. Records minutes of court proceedings, using stenotype machine or shorthand, and trsnscribes testimony, using typewriter. Records case disposition, court orders, and arrangement for payment of court fees. Collects court fees or fines and records amounts collected.

GOE: 07.01.02 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

243.362-014 POLICE AIDE (government ser.)

Performs any combination of following tasks in police department to relieve police officers of clerical duties: Types and files police forms, such as accident reports, arrest records, evidence cards, and attendance records and schedules. Posts information to police records, manually or using typewriter or computer. Gives information to public, over phone or in person, concerning arrests, missing persons, or other police related business. Operates telephone system to take or relay information. Receives and records physical evidence recovered from crime scenes by police officers.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 79

243.367-010 MAIL CENSOR (government ser.)

Opens and inspects incoming and outgoing correspondence and packages to ensure compliance with prison security rules: Reads incoming and outgoing correspondence (with permission of appropriate jurisdiction) of prisoners with adjustment problems or suspected of forbidden activities, such as planning escapes or attempting to contact confederates outside prison. Removes money mailed to prisoners, prepares receipt, and forwards to security office for safekeeping. Impounds contraband articles, such as weapons and drugs, and notifies proper authorities of rules violations. Returns to sender, articles prisoners are forbidden to possess. May evaluate content of incoming correspondence, conferring with psychiatric staff to protect inmate against information considered injurious to prisoner's emotional welfare or adjustment.
GOE: 07.05.02 STRENGTH: S GED: R4 M2 L3 SVP: 5 DLU: 77

243.367-014 POST-OFFICE CLERK (government ser.) alternate titles: postal clerk

Performs any combination of following tasks in post office: Sells postage stamps, postal cards, and stamped envelopes. Issues money orders. Registers and insures mail and computes mailing costs of letters and parcels. Places mail into pigeonholes of mail rack, or into bags, according to state, address, name of person, organization, or other scheme. Examines mail for correct postage and cancels mail, using rubber stamp or canceling machine. Weighs parcels and letters on scale and computes mailing cost based on weight and destination. Records daily transactions. Receives complaints concerning mail delivery, mail theft, and lost mail, completes and routes appropriate forms for investigation. Answers questions pertaining to mail regulations or procedures. Posts circulars on bulletin board for public information; distributes public announcements; and assists public in complying with other federal agency requirements, such as registration of aliens. May drive motorcycle or light truck to deliver special delivery letters. May be employed in remote retail store contracted by post office to provide postal services and be designated Contract-Post-Office Clerk (retail trade).
GOE: 07.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

243.367-018 TOWN CLERK (government ser.)

Performs variety of clerical and administrative duties required by municipal government: Prepares agendas and bylaws for town council; records minutes of council meetings; answers official correspondence; keeps fiscal records and accounts; and prepares reports on civic needs.
GOE: 07.01.02 STRENGTH: S GED: R4 M4 L3 SVP: 5 DLU: 77

245 MEDICAL SERVICE CLERKS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with performing clerical duties in hospitals, clinics, medical laboratories, blood banks, or related medical service establishments.

245.362-010 MEDICAL-RECORD CLERK (medical ser.)

Compiles, verifies, types, and files medical records of hospital or other health care facility: Prepares folders and maintains records of newly admitted patients. Reviews medical records for completeness, assembles records into standard order, and files records in designated areas according to applicable alphabetic and numeric filing system. Locates, signs out, and delivers medical records requested by hospital departments. Compiles statistical data, such as admissions, discharges, deaths, births, and types of treatment given. Operates computer to enter and retrieve data and type correspondence and reports. May assist other workers with coding of records. May post results of laboratory tests to records and be designated Charting Clerk (medical ser.).
GOE: 07.05.03 STRENGTH: L GED: R4 M3 L3 SVP: 4 DLU: 88

245.362-014 UNIT CLERK (medical ser.) alternate titles: health unit clerk; ward clerk

Prepares and compiles records in nursing unit of hospital or medical facility: Records name of patient, address, and name of attending physician to prepare medical records on new patients. Copies information, such as patient's temperature, pulse rate, and blood pressure from nurses' records onto patient's medical records. Records information, such as physicians' orders and instructions, dietary requirements, and medication information, on patient charts and medical records. Keeps file of medical records on patients in unit. Prepares notice of patient's discharge to inform business office. Requisitions supplies designated by nursing staff. Answers telephone and intercom calls and provides information or relays messages to patients and medical staff. Directs visitors to patients' rooms. Distributes mail, newspapers, and flowers to patients. Compiles census of patients. May keep record of absences and hours worked by unit personnel. May transport patients in wheelchair or conveyance to locations within facility. May key patient information into computer.
GOE: 07.05.03 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 87

245.367-010 ANIMAL-HOSPITAL CLERK (medical ser.)

Registers and admits animals brought to animal hospital; advises owners about condition of pets being treated; prepares case records of treated animals; and computes and records payment of fees: Questions animal owners to determine symptoms and to complete admission form. Answers questions by phone, letter, or in person about condition of animals treated, visiting hours, first aid, and discharge date. Prepares case record on each animal treated, including identifying information, diagnosis, and treatment. Computes treatment cost and records fees collected.
GOE: 07.04.03 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

245.367-014 BLOOD-DONOR-UNIT ASSISTANT (medical ser.)

Performs any combination of following supportive duties at blood-collection unit of blood bank: Schedules appointments over telephone for blood donors. Interviews blood donors and records identifying and blood-credit information on registration form. Notifies nurse if donor appears to be underweight or too old to give blood. Takes blood donor's temperature and pulse to assist during medical interview. Unpacks, labels, and stamps date on empty blood packs. Posts donor names, blood-control numbers, and donor-group numbers to unit logsheet. Seals filled blood packs and sample tubes, using handtools and heat-sealing machine. Serves refreshments, such as coffee, juice, cookies, and jelly beans, to donors to prevent or relieve adverse reactions and to begin replenishment of blood fluids.
GOE: 07.04.01 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

245.367-018 CALENDAR-CONTROL CLERK, BLOOD BANK (medical ser.) alternate titles: blood-bank-booking clerk

Schedules dates for mobile blood collection units to visit blood-donor groups for nonprofit blood bank: Determines available date to schedule mobile blood collection units to visit blood-donor group, such as business or fraternal organizations, labor unions, or schools, or for blood-donor groups to visit temporary blood collection stations, based on uncommitted dates, availability of mobile units, location of donor groups, anticipated number of blood donors, and total daily blood collection capacity of blood bank. Prepares tentative weekly schedule and distributes schedule to mobile units and BLOOD-DONOR RECRUITERS (medical ser.). Notifies staff when change occurs in schedules. Confers with mobile-unit supervisor and BLOOD DONOR RECRUITERS (medical ser.) to learn changes in information and to advise of any late changes in scheduling. Prepares reports on anticipated and actual blood donations for management.
GOE: 07.05.01 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

245.367-022 CREDIT CLERK, BLOOD BANK (medical ser.)

Reviews and verifies applications for blood credit for members of blood donor groups; informs hospital of result of verification; and answers inquiries regarding blood credit from patients, donor groups, hospitals, and health insurance organizations: Checks blood credit release form received from blood donor groups for completeness and legibility and reviews blood bank records to determine eligibility for donor blood credit. Records amounts of blood or components used by patient and issues credit slip to blood bank accounting department. Sends copies of credit slips to hospitals and health insurance organizations. Processes reciprocity forms being sent to or received from Red Cross clearance agency authorizing blood credit from one blood bank region to another. Answers inquiries by phone or letter from patients and family, blood donor groups, hospital staff, and health insurance staff regarding blood credit information.
GOE: 07.05.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

245.367-026 ORDER-CONTROL CLERK, BLOOD BANK (medical ser.; nonprofit organ.)

Receives and processes requests for blood from hospitals: Records amount and type of whole blood or blood component requested and checks inventory control board, or phones blood storage units, laboratories, doctors, or other hospitals to determine availability of whole blood and blood components. Questions hospital ordering blood as to urgency and use of blood. Advises supervisor or staff doctor when blood request is excessive, unusual, or for rare blood type or component, or when blood inventory is low. Relays orders to blood storage units to prepare and ship blood or components to designated hospitals. Adjusts figures on blood inventory control board and records transfer of blood from one hospital to another.
GOE: 07.05.04 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

245.587-010 DIET CLERK (medical ser.)

Prepares dietary information for use by kitchen personnel in preparation of foods for hospital patients: Examines diet orders and menus received from hospital units and tallies portions and foods of general and soft diets. Tallies quantities of specific foods, such as vegetables and meats, to be prepared in kitchen. Marks tally on master menu to inform kitchen personnel of food requirements. Processes new diets and changes as required. May calculate diabetic diets, using calculator, and following standards established by DIETITIAN, CLINICAL (profess. & kin.) 077.127-014. May answer telephone and intercom calls and relay information to kitchen concerning meal changes, complaints, or patient discharge. May prepare and deliver formula and special nourishments to unit pantries.

GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 86

247 ADVERTISING-SERVICE CLERKS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with performing clerical duties related to advertising products and services.

247.137-010 SUPERVISOR, ADVERTISING-DISPATCH CLERKS (print. & pub.)

Supervises and coordinates activities of ADVERTISING-DISPATCH CLERKS (print. & pub.) engaged in compiling and dispatching advertising schedules and materials to composing room of daily or weekly publication and maintaining advertising files: Confers with advertising and composing-room personnel to organize and file customer advertising copy. Confers with customers by telephone to discuss copy revisions. Reviews customer advertising files to ensure that information is correct and that files are maintained according to company standards. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.01 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 77

247.137-014 SUPERVISOR, CLASSIFIED ADVERTISING (print. & pub.)

Supervises and coordinates activities of workers engaged in preparing classified advertisements: Reviews advertisement and suggests changes to improve its effectiveness. Reviews customer accounts and approves credit or refers matter to credit department. Edits copy of accepted advertisements and forwards copy to composing room. Trains new personnel in work procedures. May make personal or telephone contacts to solicit new accounts or to increase use of advertising by current customers. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

247.367-010 CLASSIFIED-AD CLERK I (print. & pub.) alternate titles: ad clerk

Receives orders for classified advertising for newspaper or magazine by telephone or in person: Talks to customer to determine wording and dates of publication of classified advertisement. Determines word, line, or day rates, using rate schedule, and calculates total charge for customer. Assigns box number for anonymous advertisements. Collects payments for advertisements. Writes order form to customer's specification and transmits to production personnel for publication. Writes receipts and keeps records of transactions. May mark advertising that has expired and indicate number of days other advertisements are to continue. May record customer's request for cancellations or corrections of classified advertisement. May solicit orders for classified advertisements over telephone [TELEPHONE SOLICITOR (any industry)]. When taking order over telephone, may be designated Telephone Ad Taker (print. & pub.).

GOE: 07.04.02 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

247.382-010 MEDIA CLERK (business ser.)

Keeps record of clients' advertising schedules for advertising agency: Computes cost of space allotment and advertising program from standard rates and data. Records media used, such as newspapers and magazines, and expenses. Types contract after receiving client's approval. Determines cost of advertising space in various media in other areas considering factors, such as size and population of city, space rates, and kind and frequency of publication for comparison.

GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

247.387-010 ADVERTISING CLERK (business ser.)

Compiles advertising orders for submission to publishers and verifies conformance of published advertisements to specifications, for billing purposes: Reviews order received from advertising agency or client to determine specifications. Computes cost of advertisement, based on size, date, position, number of insertions, and other requirements, using rate charts. Posts cost data on order and worksheet. Types and mails order and specifications to designated publishers. Files order data pending receipt of publication. Scans publication to locate published advertisement. Measures advertisement, using ruler or transparent calibrated overlay, to verify conformance to size specifications [ADVERTISING-SPACE CLERK (print. & pub.)]. Compares advertisement with order to verify conformance to other specifications. Computes difference in cost when published advertisement varies from specifications and posts corrected costs on order controls. Separates tear sheet (page upon which advertisement appears) from publication, types and attaches identifying information to tear sheet; and routes with order and worksheet to billing department.

GOE: 07.02.04 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

247.387-014 ADVERTISING-DISPATCH CLERK (print. & pub.) alternate titles: schedule clerk

Compiles and dispatches advertising schedule and material to composing room of daily or weekly publication: Reviews advertising order and prepares advertising schedule, listing size of ad, date(s) to appear, and page and position of ad. Searches advertising files and selects mat that corresponds to advertising layout. Dispatches mat, advertising layout and copy, and advertising schedule to composing department. Obtains advertising proofs from composing department and dispatches them to advertising department for proofreading. Maintains files of all advertising material. May proofread and correct advertising proofs. May read advertisement in first edition of publication for errors.

GOE: 07.05.01 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

247.387-018 ADVERTISING-SPACE CLERK (print. & pub.) alternate titles: space clerk

Measures and draws outlines of advertising space on dummy newspaper copy and compiles and records identifying data on dummy copy and other worksheets used as guides for production workers: Computes total inches of advertising and news copy for next day's edition, using adding machine, and reads chart to determine required number of newspaper pages. Measures and draws outlines of advertisements in sizes specified onto dummy copy sheets, using pencil and ruler and arranging advertisements on each sheet so that competitive ones do not appear on same page and balance is attained. Records name of advertiser and dimensions of advertisement within ruled outlines and date and page number on each sheet. Extracts data from dummy copy and other sources and records onto lineage breakdown sheets (production worksheets). Delivers dummy copy and lineage breakdown sheets to designated production and administrative personnnel for review and use.

GOE: 01.06.01 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 77

247.387-022 CLASSIFIED-AD CLERK II (print. & pub.) alternate titles: classified-copy-control clerk

Examines and marks classified advertisements of newspaper according to copy sheet specifications to guide composing room in assembling type: Marks advertisements that have expired and indicates number of days others are to continue, using classified file copy and copy sheet for current day. Computes and records total number of lines expired and number of lines for new advertisements.

GOE: 07.05.02 STRENGTH: S GED: R3 M3 L2 SVP: 5 DLU: 77

247.667-010 PRODUCTION PROOFREADER (print. & pub.; retail trade)

Compares proofs of store advertisements with original copy to detect errors in printed material. Reads proofs and corrects errors in type, arrangement, grammar, punctuation, or spelling, using proofreader's marks. Routes proofs with corrections to be reprinted and reads corrected proofs.

GOE: 07.05.02 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

248 TRANSPORTATION-SERVICE CLERKS, N.E.C

This group includes occupations, not elsewhere classified, concerned with performing clerical duties in the air-, motor-, rail-, or water-transportation industries.

248.137-010 BOOKING SUPERVISOR (water trans.)

Supervises and coordinates activities of workers engaged in booking shipments of cargo on ships and keeping booking control records to ensure maximum utilization of cargo spaces: Reviews records of bookings and studies plans of cargo spaces to determine type of tonnage that can be booked on each ship in order to obtain maximum revenue and utilize available cargo space. Assigns booking duties to workers and gives work directions regarding tonnage or cubic feet of storage space that can be booked for refrigerated cargo, or container cargo. Coordinates booking and space control activities to ensure that each ship is booked to capacity. Trains workers in booking procedures and demonstrates methods of converting cubic feet of storage space into tonnage. Submits booking sheets to documentation department for preparation of shipping documents. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.05.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

248.137-014 PURCHASING-AND-CLAIMS SUPERVISOR (water trans.)

Supervises and coordinates activities of workers in purchasing-and-claims department of ferryboat service: Reviews and approves requisitions for supplies and designates approved supplier. Reviews and forwards for approval requisitions for ferry or terminal maintenance or repair. Recommends contractors or vendors for notification to bid for repair or supply contracts. Supervises and coordinates activities of workers engaged in typing correspondence, preparing requisitions, obtaining price quotations, and verifying accuracy of billing. Performs other duties as described under SUPERVISOR (clerical) Master Title. Reviews claims by passengers of ferry service for property damage or personal injury and authorizes payment or submits claims to insurance carrier.

GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

248.137-018 SUPERVISOR, CUSTOMER SERVICES (motor trans.)

Supervises and coordinates activities of workers engaged in servicing and promoting shipper accounts for parcel-delivery firm: Reviews records indicating shipper parcel volume, claims for damaged and lost parcels, and deficiencies in parcel preparation for pickup and delivery. Discusses service to shippers with assigned representatives to develop plans of service. Meets with, or directs representatives to meet with, shippers to resolve problems in wrapping and handling of parcels and relationships between firm's employees and shippers. Assigns representatives to solicit prospective accounts. Evaluates performance and productivity of workers and reports to management. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

248.167-010 SUPERCARGO (water trans.) alternate titles: freight clerk

Plans and coordinates loading and unloading of ships' cargo and prepares reports on type, amount, and condition of cargo to protect company from claims for damage or shortage: Examines cargo lists to determine types of cargo that

can be loaded together. Prepares loading and stowage plan to ensure that weight of cargo is equally distributed in hatches. Informs shippers and supervisor of CARGO CHECKERS (water trans.) of loading time and point, and supervisors of STEVEDORES (water trans.) II of cargo to load and location of load. Prepares reports, such as tonnage carried, breakage, overages, and shortages. Acts as agent of shipowners in foreign ports.
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

248.362-010 INCOMING-FREIGHT CLERK (water trans.) alternate titles: storage-wharfage clerk
Compiles documents on incoming cargo shipments to expedite removal of cargo from dock and prepares bill for shipping charges: Examines ship's manifest and bills of lading to determine work procedures for releasing cargo. Contacts terminal employees by telephone to determine when cargo will be available for removal from dock. Notifies consignee or agent by telephone or letter of arrival dates of shipment, customs clearance requirements, and tonnage of shipment. Stamps bill of lading so that cargo can be removed from dock. Computes from bills of lading, shipping, storage, and demurrage charges, using calculator. Prepares bill for charges and submits it to accounting department for collection.
GOE: 07.02.04 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

248.362-014 WEATHER CLERK (air trans.)
Assembles and distributes weather charts and bulletins to provide data for DISPATCHER (air trans.) in making flight plans: Reads messages and charts received by telegraphic typewriter and telautograph. Assembles and fastens together individual messages, using tape. Prints copies of weather reports, charts, and maps, using duplicating machine [DUPLICATING-MACHINE OPERATOR (clerical) II]. Posts charts on flight crew bulletin board or distributes to AIRPLANE PILOTS, COMMERCIAL (air trans.).
GOE: 07.07.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

248.367-010 AIRPLANE-DISPATCH CLERK (air trans.) alternate titles: flight-operations-dispatch clerk
Compiles flight information to expedite movement of aircraft between and through airports: Compiles aircraft dispatch data, such as scheduled arrival and departure times at checkpoints and scheduled stops, amount of fuel needed for flight, and maximum allowable gross takeoff and landing weight. Submits data to DISPATCHER (air trans.) for approval and flight authorization. Receives messages on progress of flights. Posts flight schedules and weather information on bulletin board. Compiles such information as flight plans, ramp delays, and weather reports, using Teletype, computer-printout terminal, and two-way radio, to anticipate off-schedule arrivals or departures and notifies flight operations of schedule changes. Prepares messages concerning flights for transmittal by radio, telegraph, or telegraphic typewriter to other stations on routes. May operate telegraphic typewriter or two-way radio to send messages. May issue maps to pilot. May duplicate weather maps and telegraph or radio messages [DUPLICATING-MACHINE OPERATOR (clerical) II]. May record flight and weather information on tape recorder for playback to passengers in waiting areas. May verify presence or locate scheduled flight crews, and post changes in flight crew schedule on bulletin board.
GOE: 07.05.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

248.367-014 BOOKING CLERK (water trans.)
Books outbound freight shipments to ensure maximum use of available cargo space on company ships: Obtains cargo data from shipper, such as type, tonnage, destination, and shipping date, in order to determine allocation of cargo and fully utilize capacity of each ship. Consults booking sheet to ascertain availability of cargo space. Informs shipper of ship's name on which cargo is booked, sailing date, and cargo delivery date. Records cargo data on booking control sheet, listing tonnage, type of cargo, shipper's name, and cargo destination. May be designated according to type of cargo booked as Container-Cargo Clerk (water trans.); General-Cargo Clerk (water trans.); Refrigerated-Cargo Clerk (water trans.).
GOE: 07.05.01 STRENGTH: S GED: R3 M2 L2 SVP: 5 DLU: 77

248.367-018 CARGO AGENT (air trans.) alternate titles: air-freight agent; customer service agent
Routes inbound and outbound air freight shipments to their destinations: Takes telephone orders from customers and arranges for pickup of freight and delivery to loading platform. Assembles cargo according to destination. Weighs items and determines cost, using rate book. Itemizes charges, prepares freight bills, accepts payments and issues refunds. Prepares manifest to accompany shipments. Notifies shippers of delays in departure of shipment. Unloads inbound freight and notifies consignees on arrival of shipments and arranges for delivery to consignees. May force conditioned air into interior of plane for passenger comfort prior to departure, using mobile aircraft-air-conditioning-unit.
GOE: 05.09.01 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

248.367-022 CONTAINER COORDINATOR (water trans.)
Expedites movement of cargo containers between ports to ensure adequate supply of empty containers for shipper: Records movement of loaded and unloaded cargo containers between ports and number of containers available for shipping cargo. Expedites delivery of loaded containers to consignee, using telephone or Teletype. Computes storage and demurrage charges on containers for use by accounting department, using calculating machine.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

248.367-026 DISPATCHER, SHIP PILOT (water trans.)
Dispatches PILOT, SHIP (water trans.) to ships entering or leaving port: Writes order showing name of ship, berth, tugboat company, and time of arrival or departure, and notifies PILOT, SHIP (water trans.) and pilot boat operator of assignment. Obtains receipt of pilotage from pilot upon return from ship. Records charges on receipt, using tariff book as guide. Compiles reports of activities, such as number of ships piloted and charges made. Keeps records of ships entering port, showing owner, name of ship, displacement tonnage, agent, and country of registration. May be required to possess radiotelephone operator's license issued by Federal Communications Commission, and operate radar to fix position and speed of ships entering and leaving port.
GOE: 07.04.05 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

248.367-030 WATERWAY TRAFFIC CHECKER (water trans.)
Observes vessels passing inland-waterway checkpoint, using binoculars, to verify identity and ascertain speed and direction. Telephones observations to designated control point, such as drawbridge or lock station. Reports movements of overdue vessels to estimate arrival time at specified points along waterway. Notifies waterway officials or other authorities of accidents, distress signals from passing vessels, obstructions, and other unusual conditions observed from checkpoint. Records observations in log.
GOE: 07.04.05 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 77

248.382-010 TICKETING CLERK (air trans.) alternate titles: teleticketing agent; ticket agent
Compiles and records information to assemble airline tickets for transmittal or mailing to passengers: Reads coded data on booking card to ascertain destination, carrier, flight number, type of accommodation, and stopovers enroute. Selects ticket blank, invoice, and customer account card if applicable, and compiles, computes, and records identification and fare data, using tariff manuals, rate tables, flight schedules, and pen or ticket imprinter. Separates and files copies of completed tickets. Clips completed tickets and invoices to booking cards and routes to other workers for Teletype transmittal or mails tickets to customers. Computes total daily fares, using adding machine, to compile daily revenue report.
GOE: 07.02.04 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

248.387-010 FLIGHT OPERATIONS SPECIALIST (military ser.)
Maintains aviation operations files and records, and prepares and types reports, orders, and schedules pertaining to aviation operations and aviation safety: Displays flight planning information to include airfield diagram, status of navigational aids, map of local flying area, special use airspace, and crash grid chart. Maintains and issues flying regulations and pilot's and flight crew's information file. Keeps files of extended flight and navigational information, such as weight and balance data, cross-country kits, navigational publications, radio and landing facility charts, flight information manuals, maps, and other pertinent guides and notices. Compiles, prepares, and distributes correspondence, such as aviation operations reports, aviation safety reports, and flight schedules. Assists flight-line personnel in assigning crew and passengers to aircraft and assists aviators in preparing flight plans, processes flight plans and arrival reports for transmission to flight and air traffic control centers.
GOE: 07.05.03 STRENGTH: L GED: R3 M3 L2 SVP: 6 DLU: 77

248.387-014 TONNAGE-COMPILATION CLERK (water trans.)
Calculates tonnage of specified components of ship's cargo to compile report for use in assessing tariffs: Calculates tonnage of each commodity from ship's manifest. Converts cubic feet of cargo volume into tonnage assessable. Converts metric volume of cargo into pounds and cubic feet, using formulas and calculating machine. Compiles tonnage list for each commodity in ship's cargo and submits lists to accounting department.
GOE: 07.02.04 STRENGTH: S GED: R4 M3 L3 SVP: 5 DLU: 77

249 MISCELLANEOUS CLERICAL OCCUPATIONS, N.E.C.

This group includes clerical occupations, not elsewhere classified.

249.137-010 OFFICE SUPERVISOR, ANIMAL HOSPITAL (nonprofit org.)
Supervises and coordinates activities of clerical staff in nonprofit animal hospital. Performs duties as described under SUPERVISOR (clerical) Master Title. May interview pet owners to compile information on financial status and make determinations regarding eligibility for free services, reduced fees, or deferred payments. May supervise clerical staff in animal shelter section and be designated Chief Clerk, Shelter (nonprofit org.).
GOE: 07.05.03 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

249.137-014 SUPERVISOR, CONTACT AND SERVICE CLERKS (utilities)
Supervises and coordinates activities of CONTACT CLERKS (utilities) engaged in preparing gas and electric-power service orders and SERVICE CLERKS (clerical) engaged in receiving service requests on telephone: Routes service orders to service departments and outlying service centers. Reviews completed orders for accuracy, completeness, and conformity to specified procedures. Reviews incomplete or rejected orders to determine actions to facilitate completion. Answers telephone questions from customers, contractors, building inspectors, and other company departments pertaining to progress in completion of orders. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.04.02 STRENGTH: S GED: R4 M2 L4 SVP: 7 DLU: 77

249.137-018 SUPERVISOR, CORRESPONDENCE SECTION (insurance)

Supervises and coordinates activities of workers engaged in preparing correspondence, policies, and related clerical activities in headquarters or branch office of insurance company: Reads policyholder and company field personnel correspondence, studies policy records, and examines replies prepared by CORRESPONDENCE CLERKS (clerical) 209.362-034 and POLICYHOLDER-INFORMATION CLERKS (insurance) 249.262-010 to determine completeness of replies and appropriateness of actions taken. Proofreads copy for style, appearance, accuracy of spelling, punctuation, grammar, and conformity with company standards. Returns faulty work with instructions for revision. Performs other duties as described under SUPERVISOR (clerical) Master Title. May verify accuracy of computations, using calculator. May dictate replies to nonroutine correspondence. May review and correct records, using computer.

GOE: 07.05.03 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 78

249.137-022 SUPERVISOR, CUSTOMER RECORDS DIVISION (utilities)

Supervises and coordinates activities of workers engaged in receiving requests from customers pertaining to connection, transfer, or disconnection of gas and electric-power services, issuing service connection orders, and maintaining records concerning service connection: Interprets company policies and work procedures for employees pertaining to customer contacts, service complaints, preparation and disposition of work orders, and maintenance of service records. Sorts and distributes completed meter orders. Reviews completed meter orders to assure entry of rates, constants, and demand. Reviews incomplete orders to determine procedure for disposition. Prepares annual operating budget, and special and regular reports. May receive money collected by workers for special connections. Performs other duties described under SUPERVISOR (clerical) Master Title.

GOE: 07.04.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

249.137-026 SUPERVISOR, ORDER TAKERS (clerical) alternate titles: sales-service supervisor

Supervises and coordinates activities of workers taking customer orders for products and merchandise by telephone, mail, or in person: Monitors ORDER CLERKS (clerical) to evaluate order-taking performance and to assist in responding to customer inquiries and complaints. Consults with sales, technical, shipping, or administrative staff and telephones or writes letters to answer or advise customer. Reviews completed orders for errors or omissions. Trains ORDER CLERKS (clerical) in order-taking procedures and customer-relations techniques, and advises workers of new or revised information on products or merchandise, such as product capability, pricing, credit, warranties, and shipping. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.04.02 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 77

249.137-030 SUPERVISOR, REAL-ESTATE OFFICE (real estate)

Supervises and coordinates activities of clerical personnel in real estate office: Interviews clerical applicants, gives performance tests, and evaluates applicant data to determine new hires. Verifies completeness, accuracy, and timeliness of clerical personnel production. Prepares or assists in preparaing papers for closings of real estate transactions, such as sales contracts and purchase agreements. Analyzes financial activities of establishment and prepares reports for review of SALES AGENT, REAL ESTATE (real estate) 250.357-018 or other personnel. Schedules government inspections of properties to ensure that offerings meet code regulations. Contacts mortgage companies to determine insurance status of properties. Notifies utility companies of transfer of property to new owners. Performs other duties as described under SUPERVISOR (clerical) Master Title.

GOE: 07.01.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 86

249.137-034 SUPERVISOR, LENDING ACTIVITIES (financial)

Supervises and coordinates activities of workers engaged in processing and recording commercial, residential, and consumer loans: Answers workers' and customers' questions regarding procedures. Reviews and authorizes corrections to loan records. Supervises MORTGAGE LOAN PROCESSOR (financial) 249.362-022; MORTGAGE LOAN CLOSER (financial) 249.362-018; CLERK-TYPIST (clerical) 203.362-010; and others. Performs other duties as described under SUPERVISOR (clerical) Master Title. Workers who supervise loan collection are classified under SUPERVISOR, CREDIT AND LOAN COLLECTIONS (clerical) 241.137-010.

GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 88

249.167-010 AUTOMOBILE-CLUB-SAFETY-PROGRAM COORDINATOR (nonprofit org.)

Coordinates activities and gives information and advice regarding traffic-engineering and safety programs of automobile club: Develops and revises automobile-club procedures regarding traffic-engineering and safety programs. Arranges for speakers to address gatherings to promote and explain traffic-engineering and safety programs. Schedules, monitors, and keeps records on program activities. Advises club members about traffic summonses and violations and contacts courts to expedite processing or clarify disposition of summonses. Answers questions and gives information to callers or visitors about traffic-engineering and safety programs of automobile club. Prepares reports about road or traffic-control conditions based on information received from club members or other staff members.

GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

249.167-014 DISPATCHER, MOTOR VEHICLE (clerical)

Assigns motor vehicles and drivers for conveyance of freight or passeng Compiles list of available vehicles. Assigns vehicles according to factors, s as length and purpose of trip, freight or passenger requirements, and prefer of user. Issues keys, record sheets, and credentials to drivers. Records tim departure, destination, cargo, and expected time of return. Investigates over vehicles. Directs activities of drivers, using two-way radio. May confer customers to expedite or locate missing, misrouted, delayed, or damaged r chandise. May maintain record of mileage, fuel used, repairs made, and o expenses. May establish service or delivery routes. May issue equipmen drivers, such as handtrucks, dollies, and blankets. May assign helpers to driv May be designated according to type of motor vehicle dispatched as Dispatc Automobile Rental (automotive ser.); Dispatcher, Tow Truck (automotive se

GOE: 07.05.01 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 78

249.167-018 LABOR EXPEDITER (construction)

Expedites movement of labor to construction locations: Contacts resentatives of transportation, feeding, and housing facilities to arrange for s icing workers at transient points. Issues permits, identification cards, and tic to workers for travel to specified areas. May contact labor union with juris tion, where project is located, to inform labor official of recruited workers to determine union regulations in area. May direct workers to report to l union after arrival in area. May meet recruited workers at designated depot, port, or dock.

GOE: 07.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

249.262-010 POLICYHOLDER-INFORMATION CLERK (insurance) ternate titles: correspondent; customer-service clerk

Analyzes and answers requests by mail, telephone, or in person from pol holders, beneficiaries, or others for information concerning insurance polic Searches company records to obtain information requested by customer. E mates loan or cash value of policy for policyholders, using rate books and culating machine. Interprets policy provisions to determine methods of effec desired changes, such as change of beneficiary or type of insurance, or cha in method of payment. Mails or gives out specified forms and routes comple forms to various units for processing. Analyzes policy transactions and corr company records to adjust errors. May compose formal synopses of comp and competitor policies for use by sales force. May provide information pensioners and be designated Pensionholder-Information Clerk (insurance).

GOE: 07.04.04 STRENGTH: S GED: R4 M2 L4 SVP: 6 DLU: 77

249.267-010 COPYRIGHT EXPERT (radio-tv broad.) alternate tit copyright clerk

Examines script of radio and television musical programs prior to broadc ing to ascertain that permission has been secured for use of copyrighted m rials: Investigates musical compositions as to author, owner, and publisher verify that license has been granted company to use programmed material to arrange for payment to copyright owner. Examines musical arrangements determine whether they constitute an infringement on other copyrighted rangements.

GOE: 07.05.02 STRENGTH: S GED: R4 M2 L4 SVP: 7 DLU: 77

249.362-010 COUNTER CLERK (tel. & tel.)

Receives, types, routes, and collects payment for telegraph messages cashes money order warrants at counter in telegraph office: Quotes rates telegrams and collects amount due for message. Types message from c tomer's copy and places message in pneumatic tube for routing. Pays custo amount due on money order warrant. Keeps records of receipts and disbu ments and balances cash on hand at end of day. May be assigned to proc money orders only and be designated Money-Order Clerk (tel. & tel.).

GOE: 07.03.01 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 77

249.362-014 MORTGAGE CLERK (financial)

Performs any combination of following duties to process payments and ma tain records of mortgage loans: Types letters, forms, checks, and other do ments used for collecting, disbursing, and recording mortgage principal, in est, and escrow account payments, using computer. Answers customer questi regarding mortgage account and corrects records, using computer. Exami documents such as deeds, assignments, and mortgages, to ensure complia with escrow instructions, institution policy, and legal requirements. Records bursement of funds to pay insurance and tax. Types notices to governm specifying changes to loan documents, such as discharge of mortgage. Ord property insurance policies to ensure protection against loss on mortgaged pr erty. Enters data in computer to generate tax and insurance premium paym notices to customers. Reviews printouts of allocations for interest, principal, surance, or tax payments to locate errors. Corrects errors, using computer. M call or write loan applicants to obtain information for bank official. May designated according to type of work assigned as Escrow Clerk (financi Foreclosure Clerk (financial); Insurance Clerk (financial); Tax Clerk (financia

GOE: 07.01.04 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 88

249.362-018 MORTGAGE LOAN CLOSER (financial)

Schedules loan closing and compiles and types closing documents: Revie approved mortgage loan to determine conditions that must be met prior to cl ing, such as purchase of private mortgage insurance. Calls borrower, real est broker, and title company to request specified documents, such as receipt payment of outstanding tax bill. Verifies accuracy and consistency of specifi tions on documents, such as title abstract and insurance forms. Calls borrow

broker, and other specified individuals to arrange time and date for closing. Answers questions regarding closing requirements. Enters numbers and calculates loan interest and principal payment, and closing costs, using computer or factor table and calculator. Types closing documents. Assembles documents for delivery to title company, real estate broker, or lending officer for closing. Records loan information in log and on government reporting forms, using computer. May compile closed loan forms for delivery to marketing department for sale to investors.
GOE: 07.01.04 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 88

249.362-022 MORTGAGE LOAN PROCESSOR (financial)
Verifies, compiles, and types application information for mortgage loans: Reviews residential loan application file to verify that application data is complete and meets establishment standards, including type and amount of mortgage, borrower assets, liabilities, and length of employment. Recommends that loan not meeting standards be denied. Calls or writes credit bureau and employer to verify accuracy of information. Types loan application forms, using computer. Calls specified companies to obtain property abstract, survey, and appraisal. Informs supervisor of discrepancies in title or survey. Submits mortgage loan application file for underwriting approval. Types and mails approval and denial letters to applicants. Submits approved mortgage loan file to MORTGAGE LOAN CLOSER (financial) 249.362-018 for settlement. Records data on status of loans, including number of new applications and loans approved, canceled, or denied, using computer.
GOE: 07.05.02 STRENGTH: S GED: R3 M3 L3 SVP: 5 DLU: 88

249.362-026 ORDER CLERK (clerical) alternate titles: customer-order clerk; order filler; order taker
Processes orders for material or merchandise received by mail, telephone, or personally from customer or company employee, manually or using computer or calculating machine: Edits orders received for price and nomenclature. Informs customer of unit prices, shipping date, anticipated delays, and any additional information needed by customer, using mail or telephone. Writes or types order form, or enters data into computer, to determine total cost for customer. Records or files copy of orders received according to expected delivery date. May ascertain credit rating of customer [CREDIT CLERK (clerical) 205.367-022]. May check inventory control and notify stock control departments of orders that would deplete stock. May initiate purchase requisitions. May route orders to departments for filling and follow up on orders to ensure delivery by specified dates and be designated Telephone-Order Dispatcher (clerical). May compute price, discount, sales representative's commission, and shipping charges. May prepare invoices and shipping documents, such as bill of lading [BILLING TYPIST (clerical) 214.382-014]. May recommend type of packing or labeling needed on order. May receive and check customer complaints [CUSTOMER-COMPLAINT CLERK (clerical) 241.367-014]. May confer with production, sales, shipping, warehouse, or common carrier personnel to expedite or trace missing or delayed shipments. May attempt to sell additional merchandise to customer [TELEPHONE SOLICITOR (any industry) 299.357-014]. May compile statistics and prepare various reports for management. May be designated according to method of receiving orders as Mail-Order Clerk (clerical); Telephone-Order Clerk (clerical).
GOE: 07.05.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 88

249.363-010 BOOKMOBILE DRIVER (library)
Drives bookmobile or light truck that pulls book trailer, and assists in providing library services in mobile library: Drives vehicle to specified locations on predetermined schedule. Places books and periodicals on shelves according to such groupings as subject matter, reader's age grouping, or reading level. Stamps dates on library cards, files cards, and collects fines. Compiles reports of mileage, number of books issued, and amount of fines collected. Drives vehicle to garage for repairs, such as motor or transmission overhauls, and for preventive maintenance, such as chassis lubrication and oil change. May operate microfilm camera to photograph library cards [PHOTOGRAPHIC-MACHINE OPERATOR (clerical) 207.685-018].
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

249.365-010 REGISTRATION CLERK (library)
Registers library patrons to permit them to borrow books, periodicals, and other library materials: Copies identifying data, such as name and address, from application onto registration list and borrowers' cards to register borrowers, and issues cards to borrowers. Records change of address or name onto registration list and borrowers' cards to amend records. Tends microfilm machine to record identification of borrower and materials issued [PHOTOGRAPHIC-MACHINE OPERATOR (clerical)]. Reviews records, such as microfilm and issue cards, to determine title of overdue materials and to identify borrower. Types notices to notify borrower of overdue material and amount of fine due.
GOE: 07.04.03 STRENGTH: L GED: R3 M1 L3 SVP: 5 DLU: 77

249.366-010 COUNTER CLERK (photofinishing)
Receives film for processing, loads film into equipment that automatically processes film for subsequent photo printing, and collects payment from customers of photofinishing establishment: Answers customer's questions regarding prices and services. Receives film to be processed from customer and enters identification data and printing instructions on service log and customer order envelope. Loads film into equipment that automatically processes film, and routes processed film for subsequent photo printing. Files processed film and photographic prints according to customer's name. Locates processed film and prints for customer. Totals charges, using cash register, collects payment, and returns prints and processed film to customer. Sells photo supplies, such as film, batteries, and flashcubes.
GOE: 07.03.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

249.367-010 ANIMAL-SHELTER CLERK (nonprofit org.)
Assists public to adopt animals in animal shelter and compiles records of impounded animals: Assists prospective owners in selection of animals for adoption and in preparation of adoption forms. Advises new owners of pet-examination and neuterization services. Maintains list of prospective dog owners and contacts them when desired type of dog is available. Prepares dog-license forms and collects fees. Reviews shelter records of licensed-dog owners to identify owners of lost dogs; reviews other shelter records to help owners find lost pets. Compiles daily records required by animal shelter describing stray animals found by shelter workers and animals turned in by public.
GOE: 07.04.03 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

249.367-014 CAREER-GUIDANCE TECHNICIAN (education) alternate titles: career-information specialist; career resource technician
Collects and organizes occupational data to provide source materials for school career information center, and assists students and teachers to locate and obtain materials: Orders, catalogues, and maintains files on materials relating to job opportunities, careers, technical schools, colleges, scholarships, armed forces, and other programs. Assists students and teachers to locate career information related to students' interests and aptitudes, or demonstrates use of files, shelf collections, and other information retrieval systems. Assists students to take and score self-administered vocational interest and aptitude tests. Keeps records of students enrolled in work experience program and other vocational programs to assist counseling and guidance staff. Schedules appointments with school guidance and counseling staff for students requiring professional assistance. May make presentations to parent and other groups to publicize activities of career center. May operate audio-visual equipment, such as tape recorders, record players, and film or slide projectors.
GOE: 11.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

249.367-018 CHARTER (amuse. & rec.)
Observes horserace, calls out description of race to other worker, and records statistical and related data on race for use in racing publication: Focuses binoculars on distance markers along track during race and calls out horses' numbers, positions, estimate of distances of horses from inside rail and between horses, and related observable data for other worker to record. Revises record of order and distance between horses at finish line if different from intercom announcement of official results. Copies identifying information, such as horses' names and drivers, from racing form onto record. Transcribes race results, such as winning and intermediate times, purse, and prices paid to bettors from tote board onto record. Contacts judges, using intercom, for decisions on foul claims and notes record accordingly. Computes race completion times for all but winning horses, using formula. Mails completed record to printer for use in printing race results in racing publications.
GOE: 12.01.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

249.367-022 CREDIT AUTHORIZER (clerical) alternate titles: authorizer; charge-account authorizer
Authorizes credit charges against customer's account: Receives charge slip or credit application by mail, or receives information from salespeople or merchants over telephone. Verifies credit standing of customer from information in files, and approves or disapproves credit, based on predetermined standards. May file sales slips in customer's ledger for billing purposes. May prepare credit cards or charge account plates. May keep record of customer's charges and payments and mail charge statement to customer.
GOE: 07.05.02 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 77

249.367-026 CREDIT CARD CONTROL CLERK (financial) alternate titles: card processing clerk
Compiles, verifies, and files records and forms to control issuing, blocking (withholding), or renewal of credit cards, performing any combination of following duties: Receives shipments of plastic credit card blanks and verifies totals received against invoices. Assigns consecutive batch numbers to blank cards and stores cards in vault. Issues blank cards for imprinting, on requisition, and keeps records of batch numbers issued. Receives new or reissued printed cards, verifies number sequence, and compares identifying data on cards with data on application files to detect errors. Compiles lists of cards containing errors and initiates correction forms. Places completed credit cards and establishment literature into envelopes for mailing. Receives returned cards and reviews correspondence or searches records to determine customer reasons for return. Receives blocking notices from officials and places designated cards in hold file until release is authorized. Destroys inaccurate, mutilated, undelivered, withheld, or expired cards, in presence of witnesses, using scissors. Compiles list of destroyed cards and records reasons for destruction, using computer. Occasionally verifies customers' account balances to expedite issuance or renewal of cards. Maintains related files and control records. Issues cards for automated teller machines.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L2 SVP: 3 DLU: 87

249.367-030 DOG LICENSER (nonprofit org.)
Canvasses assigned area to locate and advise dog owners of licensing law; to assist with license applications; and to collect license fees: Visits homes and

questions dog owners to determine compliance with licensing law. Explains requirements to dog owners, fills out applications, and collects license fees or gives application to owners for mailing. Counts collected fees and applications. Submits fees and reports to department for record.
GOE: 07.04.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

249.367-034 EVALUATOR (nonprofit org.)
Estimates market value of items donated to vocational rehabilitation organization and prepares and mails tax receipts to donors: Sorts collection receipts by type of items donated. Estimates market value of items, using standard formula, and totals amount donated. Prepares tax receipt and mails to donor.
GOE: 05.09.02 STRENGTH: L GED: R4 M2 L2 SVP: 4 DLU: 77

249.367-042 GAS-DISTRIBUTION-AND-EMERGENCY CLERK (utilities)
Receives and relays telephone reports of gas emergencies and control-panel readings for gas-distribution-control-center of public utility company: Answers telephone reports of gas emergencies, such as leaks and fires, from general public, police, and fire departments, and notifies company personnel responsible for dispatch of service crews and issuance of reports to governmental agencies. Files charts and records of gas pressure, volume, and flow, and posts by category in daily logbook. Calculates statistical data from recorded readings and prepares gas supply-and-demand charts for use by GAS DISPATCHER (pipe lines; utilities).
GOE: 07.04.05 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

249.367-046 LIBRARY ASSISTANT (library) alternate titles: book-loan clerk; circulation clerk; desk attendant; library attendant; library clerk; library helper
Compiles records, sorts and shelves books, and issues and receives library materials, such as books, films, slides, and phonograph records: Records identifying data and due date on cards by hand or using photographic equipment to issue books to patrons. Inspects returned books for damage, verifies due-date, and computes and receives overdue fines. Reviews records to compile list of overdue books and issues overdue notices to borrowers. Sorts books, publications, and other items according to classification code and returns them to shelves, files, or other designated storage area. Locates books and publications for patrons. Issues borrower's identification card according to established procedures. Files cards in catalog drawers according to system. Repairs books, using mending tape and paste and brush, and places plastic covers on new books. Answers inquiries of nonprofessional nature on telephone and in person and refers persons requiring professional assistance to LIBRARIAN (library) 100.127-014. May type material cards or issue cards and duty schedules. May be designated according to type of library as Bookmobile Clerk (library); Branch-Library Clerk (library); or according to assigned department as Library Clerk, Art Department (library).
GOE: 11.02.04 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 82

249.367-058 PARTS-ORDER-AND-STOCK CLERK (clerical) alternate titles: purchaser, automotive parts
Purchases, stores, and issues spare parts for motor vehicles or industrial equipment: Obtains purchase order number from purchasing department and assigns identifying number. Reads shop manuals to ascertain type and specification of part. Visits, telephones, telegraphs, or contacts vendors by mail to order parts. Compares invoices against requisitions to verify quality and quantity of merchandise received. Stores purchased parts in storeroom bins and issues parts to workers upon request. Keeps records of parts received and issued, and inventories parts in storeroom periodically. May record repair time expended by mechanics. May requisition parts from central parts department for national organization.
GOE: 05.09.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

249.367-062 PROCESS SERVER (business ser.)
Serves court orders and processes, such as summonses and subpoenas: Receives papers to be served from magistrate, court clerk, or attorney. Locates person to be served, using telephone directories, state, county, and city records, or public utility records, and delivers document. Records time and place of delivery. May deliver general messages and documents between courts and attorneys.
GOE: 07.07.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

249.367-066 PROCUREMENT CLERK (clerical) alternate titles: award clerk; bid clerk; buyer, assistant; purchase-request editor; purchasing-and-fiscal clerk; purchasing clerk; purchasing-contracting clerk
Compiles information and records to prepare purchase orders for procurement of material for industrial firm, governmental agency, or other establishment: Verifies nomenclature and specifications of purchase requests. Searches inventory records or warehouse to determine if material on hand is in sufficient quantity. Consults catalogs and interviews suppliers to obtain prices and specifications. Types or writes invitation-of-bid forms and mails forms to supplier firms or for public posting. Writes or types purchase order and sends copy to supplier and department originating request. Compiles records of items purchased or transferred between departments, prices, deliveries, and inventories. Computes total cost of items purchased, using calculator. Confers with suppliers concerning late deliveries. May compare prices, specifications, and delivery dates and award contract to bidders or place orders with suppliers or mail order firms. May verify bills from suppliers with bids and purchase orders and approve bills for payment. May classify priority regulations.
GOE: 07.01.02 STRENGTH: S GED: R4 M3 L3 SVP: 4 DLU: 86

249.367-070 ROUTING CLERK (nonprofit org.)
Determines truck routes involved and issues route slips to drivers to pick up donated clothing, furniture, and general merchandise for vocational rehabilitation organization: Reviews presorted route slips and reviews street maps to determine appropriate route, based on type and quantity of merchandise pledged and location of donor. Issues route slips to drivers. Answers telephone and mail inquiries and complaints from donors concerning pickups; and advises drivers of problems or reschedules pickup. Occasionally takes pickup orders. Prepares daily truck-collection report based on information from drivers, and keeps attendance, safety, and maintenance records.
GOE: 07.05.04 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

249.367-074 TEACHER AIDE II (education) alternate titles: teacher aide, clerical
Performs any combination of following duties in classroom to assist teaching staff of public or private elementary or secondary school: Takes attendance. Grades homework and tests, using answer sheets, and records results. Distributes teaching materials to students, such as textbooks, workbooks, or paper and pencils. Maintains order within school and on school grounds. Operates learning aids, such as film and slide projectors and tape recorders. Prepares requisitions for library materials and stockroom supplies. Types material and operates duplicating equipment to reproduce instructional materials.
GOE: 07.01.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 86

249.367-078 TEST TECHNICIAN (clerical) alternate titles: evaluation aide; test examiner
Administers and scores psychological, vocational, or educational tests: Distributes test blanks or apparatus to individuals being tested. Reads directions orally from testing manual, or gives other standardized directions. Demonstrates use of test apparatus or discusses practice exercises to familiarize individuals with testing material. Monitors test group to ensure compliance with directions. Times test with stop watch or electric timer. Scores test with test-scoring key or machine. May schedule time and place for test to be administered. May administer test designed to measure work skills of mentally or physically handicapped individuals. Records results on test paper, work application, or test profile form.
GOE: 07.01.07 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 80

249.367-082 PARK AIDE (government ser.) alternate titles: park technician; ranger aide
Assists PARK RANGER (government ser.) 169.167-042 or PARK SUPERINTENDENT (government ser.) 188.167-062 in operation of state or national park, monument, historic site, or recreational area through performance of any combination of clerical and other duties: Greets visitors at facility entrance and explains regulations. Assigns campground or recreational vehicle sites, and collects fees at park offering camping facilities. Monitors campgrounds, cautions visitors against infractions of rules, and notifies PARK RANGER (government ser.) of problems. Replenishes firewood, and assists in maintaining camping and recreational areas in clean and orderly condition. Conducts tours of premises and answers visitors' questions when stationed at historic park, site, or monument. Operates projection and sound equipment and assists PARK RANGER (government ser.) in presentation of interpretive programs. Provides simple first-aid treatment to visitors injured on premises and assists persons with more serious injuries to obtain appropriate medical care. Participates in carrying ou fire-fighting or conservation activities. Assists other workers in activities concerned with restoration of buildings and other facilities or excavation and preservation of artifacts when stationed at historic or archeological site.
GOE: 07.04.03 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 86

249.367-086 SATELLITE-INSTRUCTION FACILITATOR (education alternate titles: satellite-project site monitor
Monitors training programs transmitted by communication satellite from institution of higher learning to remote educational institution or facility: Registers students for satellite communication courses and sells and distributes textbooks and other classroom materials. Activates audiovisual receiver and monitors classroom viewing of live or recorded courses transmitted by communication satellite. Stimulates classroom discussion immediately after broadcast, following standardized format. Monitors live seminar transmittals from institute o higher learning, elicits responses from classroom students, and consolidates an transmits students' questions by teletype or telephone to seminar participant for direct response via satellite. Distributes homework assignments and tes blanks to students. Collects completed assignments and tests and mails ther to institute of higher learning. Maintains class attendance records.
GOE: 07.01.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 86

249.367-090 ASSIGNMENT CLERK (clerical)
Compiles data to notify establishment personnel of position vacancies, an identifies and assigns qualified applicants, following specified guidelines an procedures: Scans reports to detect listings of vacancies or receives telephon notices of vacancies from establishment personnel. Types or writes informatio such as position titles, shifts, days off, and application deadlines, on vacanc advertisement forms. Reviews bid slips or similar application forms submitte by employees in response to advertisement and verifies relevant data on appl cation against data in personnel records. Selects applicants meeting specifie criterion, such as seniority, and notifies concerned personnel of selection. Compiles and disperses position assignment notices to notify other establishmen

personnel of applicants selected to fill vacancies. Records data on specified forms to update personnel and employment records.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L2 SVP: 5 DLU: 86

249.387-010 BROADCAST CHECKER (radio-tv broad.) alternate titles: log clerk; program checker

Monitors radio and television programs to detect contract violations with advertisers and program producers and violations of Federal Communications Commission (FCC) regulations and to detect audio and video irregularities: Times program elements, such as commercials, public service announcements, and news bulletins, using stopwatch. Observes and listens to programs to determine if FCC regulations and contract provisions with advertisers and program producers have been violated and whether quality of broadcast conforms to station and FCC standards. Logs length, type, and time of irregularities.
GOE: 11.10.02 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 77

249.387-014 INTELLIGENCE CLERK (military ser.)

Collects and organizes intelligence information from various established sources for production of intelligence documents: Reviews data to ascertain accuracy of data and reliability of sources. Compiles intelligence information and disseminates data through media, such as situation maps, charts, briefings, reports, and publications. Maintains intelligence libraries.
GOE: 07.05.03 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 77

249.387-018 PEDIGREE TRACER (clerical) alternate titles: pedigree researcher

Traces animal genealogy to certify or establish individual pedigree. Consults charts, books, and breeding records to ascertain lineage, names, ownerships, and show or racing performance records of ancestors. Records data and issues certificates.
GOE: 07.05.02 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

249.387-022 READER (business ser.) alternate titles: clipping marker; press reader; press-service reader

Reads newspapers, magazines, and other periodicals for articles of prescribed subject matter, and marks items to be clipped, using colored pencils and customer code system.
GOE: 07.05.02 STRENGTH: S GED: R3 M1 L3 SVP: 4 DLU: 77

249.467-010 INFORMATION CLERK-CASHIER (amuse. & rec.)

Cashes checks for patrons and provides information concerning racetrack activities: Receives specified amounts of monies from money room for check-cashing funds. Examines patrons' credentials and cashes checks. Directs patrons to such facilities as betting and paying windows and food and beverage concessions. Resolves patrons' claims of winning tickets not honored by PARI-MUTUEL-TICKET CASHIER (amuse. & rec.). Examines tickets under fluorescent light to verify watermark and establish validity. Confers with payment personnel to effect payment or refers disputed claims to supervisory personnel for resolution. Keeps records of customer complaints and suggestions regarding facilities and submits records to supervisory personnel.
GOE: 07.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

249.587-010 BOARD ATTENDANT (amuse. & rec.) alternate titles: gambling broker; racing-board marker; wall attendant

Writes racing information, such as betting odds, entries, and winning time, on paper sheets affixed to walls or on blackboards of bookmaking establishment. Works from stepladder.
GOE: 09.05.05 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

249.587-014 CUTTER-AND-PASTER, PRESS CLIPPINGS (business ser.) alternate titles: tearer, press clipping; trimmer, press clippings

Tears or cuts out marked articles or advertisements from newspapers and magazines, using knife or scissors. Records name of publication, page and location, date, and name of customer on label, and affixes label to clipping.
GOE: 07.07.03 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

249.587-018 DOCUMENT PREPARER, MICROFILMING (business ser.)

Prepares documents, such as brochures, pamphlets, and catalogs, for microfilming, using paper cutter, photocopying machine, rubber stamps, and other work devices: Cuts documents into individual pages of standard microfilming size and format when allowed by margin space, using paper cutter or razor knife. Reproduces document pages as necessary to improve clarity or to reduce one or more pages into single page of standard microfilming size, using photocopying machine. Stamps standard symbols on pages or inserts instruction cards between pages of material to notify MICROFILM-CAMERA OPERATOR (business ser.) 976.682-022 of special handling, such as manual repositioning, during microfilming. Prepares cover sheet and document folder for material and index card for company files indicating information, such as firm name and address, product category, and index code, to identify material. Inserts material to be filmed in document folder and files folder for processing according to index code and filming priority schedule.
GOE: 07.05.03 STRENGTH: S GED: R3 M1 L2 SVP: 2 DLU: 86

249.687-010 OFFICE COPY SELECTOR (print. & pub.)

Inspects publications, such as magazines, catalogs, and pamphlets for conformance to quality standards, and selects copies of highest quality for distribution to management, publishers, and clients according to distribution list: Reviews distribution list for specific publication in order to ascertain number of copies required for distribution. Examines overall appearance of copies received from production department for conformance to quality standards. Examines each page of copies for uniformity of margins, quality of multicolored and monocolored illustrations, missing pages, and other defects. Sorts copies with highest overall quality and routes stack to management. Selects copies which have highest quality reproductions of advertisements and feature articles, tags individual copies or bundles according to distribution sheet, and routes stacks to mailing room. Keeps records of copies distributed.
GOE: 07.05.04 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

249.687-014 PAGE (library) alternate titles: runner; shelver; shelving clerk; stack clerk

Locates library materials, such as books, periodicals, and pictures for loan, and replaces material in shelving area (stacks) or files, according to identification number and title. Trucks or carries material between shelving area and issue desk. May clip premarked articles from periodicals.
GOE: 07.07.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

25 SALES OCCUPATIONS, SERVICES

This division includes occupations concerned with selling real estate, insurance, securities, and other business, financial, and consumer services.

250 SALES OCCUPATIONS, REAL ESTATE, INSURANCE, SECURITIES, AND FINANCIAL SERVICES

This group includes occupations concerned with renting, buying, and selling real property for clients; selling insurance to clients; buying and selling securities; and selling financial services, such as accounting, auditing, tax, credit checking, financial planning, lending and other services of financial institutions.

250.157-010 SUPERINTENDENT, SALES (construction) alternate titles: sales representative

Plans and promotes sale of new and custom-built homes for building contractor: Plans and organizes sales promotion programs and techniques in cooperation with suppliers of household appliances, furnishings, and equipment. Locates and appraises undeveloped areas for building sites, based on evaluation of area market conditions. Interviews prospective clients and shows homes under construction to display construction features and quality of work. Reviews plans and specifications for custom-built homes with client and ARCHITECT (profess. & kin.) to clarify costs and construction details in preliminary negotiations for contract. Recommends construction features and available decorating options, such as cabinet installations, to aid client in formulating plans. Answers questions regarding work under construction. May assess clients' financial status to determine eligibility for financing home through contractor. May arrange for sale of client's present home [SALES AGENT, REAL ESTATE (real estate)].
GOE: 08.02.04 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

250.257-010 SALES AGENT, INSURANCE (insurance) alternate titles: insurance agent

Sells insurance to new and current clients: Compiles lists of prospective clients to provide leads for additional business. Contacts prospective clients and explains features and merits of policies offered, recommending amount and type of coverage based on analysis of prospect's circumstances, and utilizing persuasive sales techniques. Calculates and quotes premium rates for recommended policies, using calculator and rate books. Calls on policyholders to deliver and explain policy, to suggest additions or changes in insurance program, or to make changes in beneficiaries. May collect premiums from policyholders and keep record of payments. Must hold license issued by state. May be designated according to type of insurance sold as Sales Agent, Casualty Insurance (insurance); Sales Agent, Fire Insurance (insurance); Sales Agent, Life Insurance (insurance); Sales Agent, Marine Insurance (insurance). May work independently selling variety of insurance, such as life, fire, casualty, and marine, for many companies and be designated Insurance Broker (insurance). May work independently selling for one company and be designated General Agent (insurance).
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 81

250.257-014 FINANCIAL PLANNER (profess. & kin.)

Develops and implements financial plans for individuals, businesses, and organizations, utilizing knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate: Interviews client to determine client's assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives. Analyzes client's financial status, develops financial plan based on analysis of data, and discusses financial options with client. Prepares and submits documents to implement plan selected by client. Maintains contact with client to revise plan based on modified needs of client or changes in investment market. May refer client to other establishments to obtain services outlined in financial plan. May sell insurance to client, recommending amount and type of coverage [SALES AGENT, INSURANCE (insurance) 250.257-010]. May buy and sell stocks and bonds for client [SALES AGENT, SECURITIES (financial) 251.157-010]. May rent, buy, and sell property for client [SALES AGENT, REAL ESTATE (real estate) 250.357-018]. May be registered with professional

self-regulatory association and be designated Certified Financial Planner (profess. & kin.).
GOE: 08.01.02 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 86

250.257-018 REGISTERED REPRESENTATIVE (financial) alternate titles: account executive; broker; investment executive; securities broker; stock-broker
Sells financial products and services to clients for investment purposes, applying knowledge of securities, investment plans, market conditions, regulations, and financial situation of clients: Identifies potential clients, using advertising campaigns, mailing lists, and personal contacts. Solicits business from potential clients. Interviews clients to determine financial position, resources, assets available to invest, and financial goals. Provides clients with information and advice on purchase or sale of securities, financial services, and investment plans, based on review of professional publications and other financial literature, and knowledge of securities market and financial services industry. Completes sales order tickets and submits completed tickets to support personnel for processing of client requested transaction. Must pass state examination to receive license and become registered to sell securities. May read status reports and perform calculations to monitor client accounts and verify transactions. May work for firm that offers discounted brokerage fees and does not offer advice to clients. May develop and implement financial plans, and sell insurance, real estate, or securities [FINANCIAL PLANNER (profess. & kin.) 250.257-014].
GOE: 11.06.04 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 89

250.257-022 SALES REPRESENTATIVE, FINANCIAL SERVICES (financial)
Sells financial services to customers of financial institution: Develops prospects from current commercial customers, referral leads, and other sources. Contacts prospective customers to present information on available services, such as deposit accounts, lines-of-credit, sales or inventory financing, cash management, or investment services. Determines customers' financial services needs and prepares proposals to sell services. Reviews business trends and advises customers regarding expected fluctuations. Attends sales and trade meetings to develop new business prospects. May make presentations on financial services to groups to attract new clients. May prepare forms or agreement to complete sale. May evaluate costs and revenue of agreements to determine if they are profitable to continue. May sell services, such as check processing and collecting, record keeping and reporting, trust, investment, or safekeeping services, or products such as travelers checks, to other financial institutions. May solicit businesses to participate in consumer credit card program.
GOE: 08.01.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 89

250.357-010 BUILDING CONSULTANT (wholesale tr.)
Sells new home construction to property owners: Displays and explains features of company house plans, using such visual aids as brochures, architectural drawings, samples of construction materials, and photographic slides. Secures construction financing with own firm or mortgage company. Contacts utility companies for service hookup to client's property. May appraise client's unimproved property to determine loan value. May investigate client's credit status. May search public records to ascertain that client has clear title to property. May contact utility companies for service hookup in customer's property.
GOE: 08.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

250.357-014 LEASING AGENT, RESIDENCE (real estate) alternate titles: rental agent
Shows and leases apartments, condominiums, homes, or mobile home lots to prospective tenants: Interviews prospective tenants and records information to ascertain needs and qualifications. Accompanies prospects to model homes and apartments and discusses size and layout of rooms, available facilities, such as swimming pool and saunas, location of shopping centers, services available, and terms of lease. Completes lease form or agreement and collects rental deposit. May inspect condition of premises periodically and arrange for necessary maintenance. May compile listings of available rental property. May compose newspaper advertisements. May be required to have real estate agent's license. May contact credit bureau to obtain credit report on prospective tenant.
GOE: 08.02.04 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 89

250.357-018 SALES AGENT, REAL ESTATE (real estate) alternate titles: real-estate agent
Rents, buys, and sells property for clients on commission basis: Studies property listings to become familiar with properties for sale. Reviews trade journals and attends staff and association meetings to keep informed of marketing conditions, property values, and legislation which would affect real estate industry. Interviews prospective clients to solicit listings. Accompanies prospects to property sites, quotes purchase price, describes features, and discusses conditions of sale or terms of lease. Draws up real estate contracts, such as deeds, leases, and mortgages, and negotiates loans on property. Must have license issued by state. May hold broker's license and be designated Real-Estate Broker (real estate). May assist buyer and seller in obtaining pertinent information or services, such as finance, maintenance, repair, or obtaining an appraisal. May obtain pictures and measurements of rooms, doors, windows, or any other specified areas for inclusion in newspaper advertisement and real estate booklets listing description of property. May inspect property to determine if repairs are needed and notify owner. May conduct seminars and training sessions for sales agents to improve sales techniques. May prepare closing statements, oversee signing of real estate documents, disburse funds, and coordinate closing activities.
GOE: 08.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 89

250.357-022 SALES REPRESENTATIVE (motor trans.)
Sells warehouse space and services to manufacturers and jobbers, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.06 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

250.357-026 SALES AGENT, FINANCIAL-REPORT SERVICE (business ser.) alternate titles: sales agent, credit services
Sells services, such as credit, financial, insurance, employee investigation reports, and credit-rating books to business establishments: Calls on establishments, such as financial institutions and commercial and industrial firms, to explain services offered by agency. Explains advantages of using impartial and factual reports and data as basis for assigning credit ratings, insurance, or security risks. May also sell equipment, such as portable teletype terminal units, for use in immediate retrieval of computerized data.
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

251 SALES OCCUPATIONS, BUSINESS SERVICES, EXCEPT REAL ESTATE, INSURANCE, SECURITIES, AND FINANCIAL SERVICES

This group includes occupations concerned with selling business services, such as management consulting, data processing, clerical, janitorial, and exterminating services.

251.157-014 SALES REPRESENTATIVE, DATA PROCESSING SERVICES (business ser.)
Contacts representatives of government, business, and industrial organizations to solicit business for data processing establishment: Calls on prospective clients to explain types of services provided by establishment, such as inventory control, payroll processing, data conversion, sales analysis, and financial reporting. Analyzes data processing requirements of prospective client and draws up prospectus of data processing plan designed specifically to serve client's needs. Consults SYSTEMS ANALYST (profess. & kin.) 030.167-014 and COMPUTER SYSTEMS HARDWARE ANALYST (profess. & kin.) 033.167-010 employed by data processing establishment to secure information concerning methodology for solving unusual problems. Quotes prices for services outlined in prospectus. Revises or expands prospectus to meet client's needs. Writes order and schedules initiation of services. Periodically confers with clients and establishment personnel to verify satisfaction with service or to resolve complaints.
GOE: 08.01.02 STRENGTH: L GED: R5 M5 L5 SVP: 7 DLU: 86

251.257-014 SALES AGENT, PSYCHOLOGICAL TESTS AND INDUSTRIAL RELATIONS (business ser.; print. & pub.)
Sells programs of industrial relations, public relations, psychological counseling, and psychological, intelligence, and aptitude testing to schools and business organizations, working for industrial psychological firm or for book publisher: Interviews management officials of business to explain advantages of utilizing services offered. Analyzes program needs of organization and recommends appropriate psychological or testing program. Answers questions about services. Takes orders for services. Aids in integrating program into firm's method of operation. May give instructions to organization personnel in administration, scoring, and interpretation of tests.
GOE: 08.01.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

251.357-010 SALES AGENT, BUSINESS SERVICES (business ser.)
Sells business service, such as food-vending, trading stamps, detective, armored truck, telephone-answering, linen supply, and cleaning service: Develops list of prospective customers by studying business and telephone directories, consulting business associates, and observing business establishment while driving through sales territory. Reviews orders for ideas to expand services available to present customers. Calls on prospects to explain features of services, cost, and advantages. Writes orders and schedules initiation of services. Confers with customers and company officials to resolve complaints. May collect payments on accounts. May be designated according to service sold as Sales Agent, Food-Vending Service (wholesale tr.); Sales Agent, Protective Service (business ser.); Sales Agent, Trading Stamps (business ser.).
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

251.357-018 SALES AGENT, PEST CONTROL SERVICE (business ser.) alternate titles: sales agent, exterminating service
Sells pest-control service to home owners and commercial concerns: Selects prospects in assigned territory from account file, list of firms with possible need, and from potential customers who have requested service. Calls on prospect to explain service. Inspects premises to ascertain presence of vermin. Prepares contract for customers including such information as name of pest, area of infestation, and remedy required, based on knowledge of pest, structural damage, kinds of insecticides, and conditions conducive to pest development. Quotes price, obtains consent of customer, and schedules EXTERMINATOR (any industry) to initiate treatment. May treat infested areas [EXTERMINATOR, TERMITE (business ser.)].
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

251.357-022 SALES REPRESENTATIVE, FRANCHISE (business ser.)
Solicits purchase of franchise operation by contacting persons who meet organization's standards: Visits prospects to explain advantages of franchised

business, services to be rendered, costs, location, and financial arrangements. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May assist franchise purchaser in early stages of operating business. May confer with purchaser and company officials to resolve complaints.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

251.357-026 SALES REPRESENTATIVE, HERBICIDE SERVICE (business ser.)
Sells weed-eradication service to firms desiring right-of-way maintenance, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. Confers with prospective customer to determine amount of ground surface to be treated, unusual vegetation problems, terrain, and other factors influencing price of service. Consults with technical staff, when needed, to arrive at proposal and price quotation.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

252 SALES OCCUPATIONS, TRANSPORTATION SERVICES

This group includes occupations concerned with selling passenger and freight transportation services. Includes arranging passenger travel and lodging accommodations by travel agents.

252.152-010 TRAVEL AGENT (business ser.; motor trans.; retail trade) alternate titles: travel counselor
Plans itineraries, and arranges accommodations and other travel services for customers of travel agency: Converses with customer to determine destination, mode of transportation, travel dates, financial considerations, and accommodations required. Provides customer with brochures and publications containing travel information, such as local customs, points of interest, and special events occurring in various locations, or foreign country regulations, such as consular requirements and currency limitations. Computes cost of travel and accommodations, using calculator, computer, carrier tariff books, and hotel rate books, or quotes package tours' costs. Books transportation and hotel reservations, using computer terminal or telephone. Prints or requests transportation carrier tickets, using computer printer system or system link to travel carrier. Collects payment for transportation and accommodations from customer. Plans, describes, arranges, and sells itinerary tour packages and promotional travel incentives offered by various travel carriers, utilizing knowledge of available travel services and promotional techniques. May specialize in foreign or domestic travel, individual or group travel, specific geographic area, airplane charters, or package tours. May be located in transportation terminal and specialize in group and individual escorted tours and be designated Tour Agent (motor trans.).
GOE: 08.02.06 STRENGTH: S GED: R4 M3 L4 SVP: 5 DLU: 81

252.257-010 TRAFFIC AGENT (air trans.; motor trans.; r.r. trans.; water trans.) alternates titles: sales representative
Solicits freight business from industrial and commercial firms and passenger-travel business from travel agencies, schools, clubs, and other organizations: Calls on prospective shippers to explain advantages of using company facilities. Quotes tariffs, rates, and train schedules. Explains available routes, load limits, and special equipment available, and offers suggestions in method of loading, crating, and handling freight. Calls on travel agents, schools, clubs, and other organizations to explain available accommodations offered by company. Quotes fares, schedules, and available itineraries offered to groups by company. Speaks to members of groups and organizations and exhibits travel movies showing points of interest along routes to stimulate interest in travel. Distributes descriptive pamphlets. Acts as liaison between shipper and carrier to obtain information for settling complaints. May specialize in soliciting freight or passenger contracts or may travel from community to community to solicit freight and passenger patronage and be designated Freight-Traffic Agent (air trans.; motor trans.; r.r. trans.; water trans.); Passenger Traffic Agent (air trans.; motor trans.; r.r. trans.; water trans.); Traveling-Freight-And-Passenger Agent (air trans.; motor trans.; r.r. trans.; water trans.).
GOE: 08.01.02 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

252.357-010 CRATING-AND-MOVING ESTIMATOR (motor trans.; r.r. trans.)
Solicits freight or storage business from homeowners and business establishments and estimates packing, crating, moving, and storage costs: Develops lists of prospective customers from review of publications and contacts with business and real estate firms, providing such information as personnel transfers and home-sales listings. Calls on prospect at home or business establishment and describes services provided by company. Examines goods to be moved or stored, estimates cubic feet of storage or shipping space required, using comparison chart, and computes cost of packing, crating, moving, shipping, and delivering household goods, machinery, or other material. Records details on itemized sales contract, such as value and description of goods, packing instructions, and charge for each service.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

252.357-014 SALES REPRESENTATIVE, SHIPPING SERVICES (motor trans.)
Solicits shipper's account for parcel-delivery firm: Visits management of new businesses and those with change of ownership to promote new business and obtain contracts for service. Explains shipping rates and regulations regarding wrapping, size, handling, and weight of parcels. Completes service contract form. Reviews shipper's accounts to identify problems, such as overdue accounts, proposed changes in pickup and delivery schedules, failure of shipper to follow parcel wrapping and handling requirements, and frequency and type of shipper's claims. Calls on shipper's representatives to discuss and resolve problems.
GOE: 08.01.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

253 SALES OCCUPATIONS, UTILITIES

This group includes occupations concerned with selling utility services, such as gas, electric power, and telephone and telegraph services.

253.157-010 COMMUNICATIONS CONSULTANT (tel. & tel.) alternate titles: special-service representative
Contacts residential, commercial, and industrial telephone company subscribers to ascertain communication problems and needs and promote use of telephone services, utilizing knowledge of marketing conditions, contracts, sales methods, and communications services and equipment: Discusses communication services, such as telephone, teletypewriter, or ticker tape, with subscriber representative to inform representative of services available, and obtains information, such as size of physical plant, range of desired communication, and type of equipment or service desired. Consults with other workers regarding communication needs of subscriber to obtain information, such as availability and cost of services or equipment requested. Analyzes information obtained to determine practicability of subscriber request and advises subscriber representative on selection and utilization of services. Prepares sales contracts. Reviews subscriber accounts to determine and evaluate utilization of communication services. May specialize in sales of commercial, industrial, or residential telephone services and be designated Communications Consultant, Commercial Services (tel. & tel.); Communications Consultant, Industrial Services (tel. & tel.); Communications Consultant, Residential Services (tel. & tel.).
GOE: 08.01.01 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 87

253.257-010 SALES REPRESENTATIVE, TELEPHONE SERVICES (tel. & tel.) alternate titles: commercial representative
Sells telephone services to business accounts: Contacts and visits commercial customers to review telephone service. Analyzes communication needs of business establishments, using knowledge of type of business, available telephone equipment, and traffic studies. Recommends services, such as additional telephone instruments and lines, switchboard systems, dial- and key-telephone systems, private-branch exchanges, and speaker telephones. Quotes rates for equipment and writes up orders. Explains equipment usage, using brochures and demonstration equipment. May specialize in selling services to a particular industry.
GOE: 08.01.02 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 77

253.357-010 SALES REPRESENTATIVE, PUBLIC UTILITIES (tel. & tel.; utilities) alternate titles: commercial service representative
Solicits prospective and existing commercial and residential clients to promote increased or economical use of public utilities, such as gas, electric power, telephone, and telegraph service: Inspects installations in existing establishments or reviews plans for new construction to determine potential need or necessity for extension of utility service. Advises customers in most economical use of utility to promote energy conservation and reduce cost. Quotes approximate rates, installation charges, and operating costs and explains company services. Writes construction requisitions and service applications, conforming to needs and requests of consumer. May investigate customers' complaints concerning bills. May be designated by type of utility sold as Sales Representative, Electric Service (utilities); Sales Representative, Gas Service (utilities); Sales Representative, Telephone and Telegraph Services (tel. & tel.) or by area in which utility is sold as Sales Representative, Rural Power (utilities).
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 78

254 SALES OCCUPATIONS, PRINTING AND ADVERTISING

This group includes occupations concerned with selling printing services, display and classified advertising for publications, outdoor advertising, and art works used for advertising purposes.

254.251-010 SALES REPRESENTATIVE, GRAPHIC ART (business ser.)
Sells graphic art, such as layout, illustration, and photography, to advertising agencies and industrial organizations for use in advertising and illustration: Plans and sketches layouts to meet customer needs. Advises customer in methods of composing layouts, utilizing knowledge of photographic and illustrative art and printing terminology. Informs customer of types of artwork available by providing samples. Computes job costs. Delivers advertising or illustration proofs to customer for approval. May write copy as part of layout.
GOE: 08.01.01 STRENGTH: L GED: R5 M3 L4 SVP: 7 DLU: 77

254.257-010 SALES REPRESENTATIVE, SIGNS AND DISPLAYS (fabrication, nec)
Solicits and draws up contracts for signs and displays: Calls on advertisers and sales promotion people to obtain information concerning prospects for cur-

rent advertising and sales promotion. Discusses advantages of and suggests ideas for signs and displays. Submits rendering or drawing of proposed sign or display to prospect. Draws up contract covering arrangements for designing, fabricating, erecting, and maintaining sign or display, depending on type of job and customer's wishes. May confer with architect in determining type of sign. May select and arrange for lease of site [SALES AGENT, REAL ESTATE (real estate)].
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

254.357-010 LEASING AGENT, OUTDOOR ADVERTISING (business ser.)
Obtains leases to sites for outdoor advertising: Persuades property owners to lease sites for erection of billboard signs used in outdoor advertising. Arranges price and draws up lease. May locate potential billboard sites, using automobile to travel through assigned district. May search legal records for land ownership.
GOE: 11.12.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

254.357-014 SALES REPRESENTATIVE, ADVERTISING (print. & pub.) alternate titles: advertising-sales representative; advertising solicitor
Sells classified and display advertising space for publication: Prepares list of prospects from leads in other papers and from old accounts. Obtains pertinent information concerning prospect's past and current advertising for use in sales presentation. Visits advertisers to point out advantages of own publication and exhibits prepared layouts with mats and copy with headings. May collect payments due. Usually designated by type of advertising sold as Sales Representative, Classified Advertising (print. & pub.); Sales Representative, Display Advertising (print. & pub.).
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

254.357-018 SALES REPRESENTATIVE, PRINTING (wholesale tr.)
Visits business establishments to solicit business for printing firm: Interviews purchasing personnel and quotes prices on printed material from schedule or secures price from ESTIMATOR, PRINTING (print. & pub.). Explains technical phases, such as type size and style, paper stock, binding materials, and various methods of reproduction. Contacts prospects, following leads submitted by management, established customers, or developed through other sources. May prepare sales promotional letters to be sent to prospective customers. May submit formal bids on large orders of printed matter.
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

254.357-022 SALES REPRESENTATIVE, SIGNS (fabrication, nec)
Sells electric, cutout, neon, engraved, or painted signs, to be made according to customers' specifications, from materials, such as wood, metal, or plastic, utilizing knowledge of lettering, color harmony, and processes involved in making various signs. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

259 SALES OCCUPATIONS, SERVICES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with selling services.

259.157-010 SALES REPRESENTATIVE, AUDIOVISUAL PROGRAM PRODUCTIONS (motion picture)
Contacts prospective customers to sell service of producing motion pictures or recordings designed to inform specific audiences about goods, services, or procedures, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title: Records customer's instructions and plans preliminary programs commensurate with customer's objectives and budget limitations. Obtains information necessary for production specialists to produce programs that accomplish customer's aims. Consults with production specialists to obtain cost estimate of program and submits estimate to customer for approval.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

259.157-014 SALES REPRESENTATIVE, HOTEL SERVICES (hotel & rest.)
Contacts representatives of government, business, associations, and social groups to solicit business for hotel, motel, or resort: Reviews information on sales meetings, conventions, training classes, overnight travel, and other functions held by organization members to select prospective customers for hotel services. Calls on prospects to solicit business, analyzes requirements of function, outlines available hotel facilities and services offered, and quotes prices. Verifies reservations by letter, or draws up contract and obtains signatures. Confers with customer and hotel department heads to plan function details, such as space requirements, publicity, time schedule, food service, and decorations. May serve as convention advisor or coordinator during function to minimize confusion and resolve problems, such as space adjustment and need for additional equipment. May select and release hotel publicity. May prepare and mail advance brochures to prospective customers.
GOE: 08.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 81

259.257-010 SALES REPRESENTATIVE, EDUCATION COURSES (education)
Solicits applications for enrollment in technical, commercial, and industrial schools: Contacts prospects, explains courses offered by school, and quotes fees. Advises prospective students on selection of courses based on their education and vocational objectives. Compiles registration information. May accept registration fees or tuition payments. May be designated according to type of school as Sales Representative, Business Courses (education); Sales Representative, Correspondence Courses (education).
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

259.257-014 SALES REPRESENTATIVE, ELECTROPLATING (wholesale tr.)
Sells electroplating services to manufacturers of formed metal and plastic products: Visits industrial establishments that manufacture formed metal and plastic products, such as metal automotive parts and plastic radio and television control panels. Evaluates structural characteristics and properties of products and determines specifications of finishing process, such as plating, anodizing, and coloring, utilizing knowledge of electroplating processes on metal and plastic. Confers with production staff of electroplating establishment to analyze special problems related to customer's product. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

259.257-018 SERVICE REPRESENTATIVE, ELEVATORS, ESCALATORS, AND DUMBWAITERS (wholesale tr.)
Sells maintenance service and engineering improvements for elevators, escalators, and dumbwaiters, applying knowledge of mechanical engineering: Compiles list of prospective customers and schedules contacts according to sales potential and geographical location. Explains type of service available and quotes cost of servicing equipment, explains tasks performed to achieve maximum performance, such as lubrication, electronic testing, and inspection of cables. Writes service contracts for new customers and renewal contracts for current customers. Explains benefits of modernizing equipment, such as improved speed, safety, and appearance. Inspects equipment and tallies traffic in building. Writes report of equipment to be modernized and changes to be made, and submits to engineering department for cost quotations. Presents proposal to customer for approval. Prepares monthly report of contracts sold, details of business transactions, and customers contacted. May sell elevator, escalator, and dumbwaiter parts to owners who maintain own equipment.
GOE: 08.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 5 DLU: 77

259.257-022 SALES REPRESENTATIVE, SECURITY SYSTEMS (business ser.)
Sells burglar, fire, and medical emergency alarm systems and security monitoring services to individuals and businesses: Contacts prospective customers to explain security monitoring services and to demonstrate alarm systems. Examines customer's home or business and analyzes customer's requirements to recommend security system to meet customer's needs. Explains operation of security system after installation. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.02 STRENGTH: M GED: R4 M3 L4 SVP: 5 DLU: 86

259.357-010 GROUP-SALES REPRESENTATIVE (amuse. & rec.) alternate titles: promotor, group-ticket sales
Promotes sale of group or season tickets for sports or other entertainment events: Telephones, visits, or writes to organizations, such as chambers of commerce, corporate-employee-recreation clubs, social clubs, and professional groups, to persuade them to purchase group tickets or season tickets to sports or other entertainment events, such as baseball, horseracing, or stage plays. Quotes group-ticket rates, arranges for sale of tickets and seating for group on specific date(s), and obtains payment. May arrange for club to sponsor sports event, such as one of races at horseracing track.
GOE: 08.02.08 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

259.357-014 SALES REPRESENTATIVE, DANCING INSTRUCTIONS (education)
Sells dancing instructions to patrons at dance studio: Interviews patron to ascertain dancing background. Dances with patron to determine dancing ability and discusses ability with patron. Devises plan of instruction and persuades patron to purchase lessons. May prepare sales contracts and receive payments. May instruct patron in dancing [INSTRUCTOR, DANCING (education)].
GOE: 08.02.05 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

259.357-018 SALES REPRESENTATIVE, RADIO AND TELEVISION TIME (radio-tv broad.) alternate titles: account executive
Contacts prospective customers to sell radio and television time or captioning services for broadcasting station, network, or cable television franchise: Calls on prospects and presents outlines of various programs or commercial announcements. Discusses current popularity of various types of programs, such as news, drama, and variety. Drives auto vehicle to prospective customer's location. May arrange for and accompany prospect to commercial taping sessions. May prepare promotional plans, sales literature, and sales contracts, using computer.
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 89

259.357-022 SALES REPRESENTATIVE, TELEVISION CABLE SERVICE (radio-tv broad.)
Contacts homeowners, apartment managers, and other prospects to sell cable television service: Compiles list of prospective customers from lists of homes that do not have cable television and lists of residential addresses with names of owners and occupants. Travels throughout assigned territory to call on pro-

spective customers in their homes to solicit orders. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 88

259.357-026 SALES REPRESENTATIVE, UPHOLSTERY AND FURNITURE REPAIR (retail trade)
Calls on prospective customers to sell and estimate cost of furniture repair and upholstery service, utilizing knowledge of upholstery and repair procedures and material and labor costs: Examines worn or damaged furniture to determine extent of repairs required. Estimates amount of material required based on style and dimensions of furniture. Advises customer on color and type of fabric. Completes estimate form and gives form to customer. Prepares sales contract for upholstery work.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

259.357-030 SALES REPRESENTATIVE, WEATHER-FORECASTING SERVICE (business ser.)
Sells weather forecasting services to business establishments: Calls on or writes to establishments, such as construction contractors and airlines, explains services, and quotes prices to gain new customers or renew current accounts. Writes customer orders and maintains order files. May write advertising and sales promotion aids.
GOE: 08.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

259.357-034 TICKET BROKER (amuse. & rec.)
Purchases entertainment tickets in blocks at box-office prices, usually before attraction opens: Prices tickets for profitable resale, based on such factors as availability and demand for tickets and location of seats. Sells tickets to public in accordance with legal regulations concerning amount of profit or place of sale. May trade as well as buy and sell tickets. May pick up and deliver, by automobile, tickets bought, sold, or traded.
GOE: 11.06.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

259.357-038 TOBACCO-WAREHOUSE AGENT (business ser.)
Solicits business for tobacco auction warehouse and rents space for display of tobacco on warehouse floor: Meets tobacco growers at warehouse entrance, on streets, or visits growers prior to sale to solicit their business. Informs customers or prospective customers of warehouse space available for tobacco display. Issues tickets to growers reserving warehouse space and ascertains that space has been reserved.
GOE: 08.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

26 SALES OCCUPATIONS, CONSUMABLE COMMODITIES

This division includes occupations concerned with selling consumable commodities, such as farm produce and livestock, foodstuffs, textiles, apparel, fuels and petroleum products, chemicals, and drug preparations, when knowledge of the commodities sold is required.

260 SALES OCCUPATIONS, AGRICULTURAL AND FOOD PRODUCTS

This group includes occupations concerned with selling farm products, such as grains, vegetables, fruits, nuts, poultry, livestock, and raw wool; cut flowers; animal hides, skins, and fur pelts; milled products, such as flour, meal, and cereals (except farm-animal feed); food staples and specialties, such as meat, seafood, dairy and bakery products, canned goods, coffee, candy, and tobacco; pet foods; and beverages, such as soft drinks, wine, and liquor. Occupations concerned with selling farm-animal feed and horticultural and nursery products, such as seeds, bulbs, shrubs, and trees, are found in Group 272.

260.257-010 SALES REPRESENTATIVE, LIVESTOCK (wholesale tr.)
Sells cattle, horses, hogs, and other livestock on commission to packing houses, farmers, or other purchasers: Contacts prospective buyers to persuade them to purchase livestock. Reviews current market information and inspects livestock to determine their value. Informs buyers of market conditions, care, and breeding of livestock. Attends livestock meetings to keep informed of livestock trends and developments.
GOE: 08.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

260.357-010 COMMISSION AGENT, AGRICULTURAL PRODUCE (wholesale tr.) alternate titles: broker, agricultural produce
Sells bulk shipments of agricultural produce on commission basis to WHOLESALERS (wholesale tr.) I or other buyers for growers or shippers. Deducts expenses and commission from payment received from sale of produce, and remits balance to shipper. May call on wholesalers' customers, such as restaurants and institutional food services, to promote sales and provide nutritional and other information about products. May be required to be licensed and bonded by state.
GOE: 08.01.03 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

260.357-014 SALES REPRESENTATIVE, FOOD PRODUCTS (wholesale tr.)
Sells food products, such as bakery products, confectionery, canned goods, coffee, tea, spices, poultry, meats, and seafood, to retail food stores, wholesale grocers, restaurants, hotels, or institutions. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May be designated according to kind of food sold as Sales Representative, Flour And Cereals (wholesale tr.); Sales Representative, Groceries (wholesale tr.); Sales Representative, Meats (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

260.357-018 SALES REPRESENTATIVE, MALT LIQUORS (wholesale tr.)
Sells beer and other malt liquors to taverns, hotels, restaurants, cocktail lounges, bowling alleys, steamship companies, railroads, military establishments, delicatessens, and supermarkets for wholesale distributor. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. Confers with SALES SUPERVISOR, MALT LIQUORS (wholesale tr.) to resolve customer problems.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 4 DLU: 77

260.357-022 SALES REPRESENTATIVE, TOBACCO PRODUCTS AND SMOKING SUPPLIES (retail trade; wholesale tr.)
Sells tobacco products, such as cigars, cigarettes, and pipe tobacco, and smoking supplies, such as pipes and tobacco pouches, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May also sell confectionery and chewing gum products.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

260.357-026 SALESPERSON, FLOWERS (retail trade)
Sells natural and artificial flowers, potted plants, floral pieces, and accessories: Advises customer regarding type of flowers, floral arrangements, and decorations desirable for specific occasions, utilizing knowledge of social and religious customs. Arranges display of flowers and decorative accessories, such as vases and ceramics. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May contact florists in other communities by telegraph or telephone to place orders for out-of-town delivery. May design and make up corsages, wreaths, sprays, and other floral decorations.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L3 SVP: 4 DLU: 77

261 SALES OCCUPATIONS, TEXTILE PRODUCTS, APPAREL, AND NOTIONS

This group includes occupations concerned with selling textile products, such as canvas, jute, and felt products, parachutes, and fish nets; yard goods, such as woolen, cotton, and synthetic fabrics; apparel and accessories, including footwear (except orthopedic), hats, wigs, belts, neckties, fur garments, and corsets; trimmings, such as embroidery, waistbands, and cording; safety apparel, such as goggles, safety belts, and fireproof suits; and notions, such as buttons, buckles, pins, needles, hooks and eyes, and slide and snap fasteners. Occupations concerned with selling textile fibers, jewelry, and leather goods other than belts and apparel, such as billfolds, luggage, and saddlery, are included in Group 269. Occupations concerned with selling orthopedic shoes are included in Group 276.

261.351-010 SALESPERSON, WIGS (personal ser.; retail trade)
Sells wigs, wiglets, falls, and other hairpieces in salon, department store, specialty shop, or customer's home, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title: Observes customer's facial features and complexion and selects wig for customer's consideration. Fits and styles wig on customer, combing and brushing wig to achieve desired effect. Advises customer on care and homestyling of wig. Styles wigs and hairpieces for display purposes, using combs, brushes, hair sprays, and cleaning compounds. May clean, cut, and style hairpieces for customer and be designated Wig Stylist (personal ser.).
GOE: 08.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

261.354-010 SALESPERSON, CORSETS (retail trade) alternate titles: corsetier
Sells corsets, girdles, brassieres, and other foundation garments: Measures customer, using tape measure, and selects garment to fit customer. Assists customer in trying on garments. Advises customer on type of garment for reducing, surgical, maternity, or corrective purposes that will support and mold figure, based on knowledge of foundation garments. May fit garment on customer and indicate necessary alterations, using pins. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

261.357-010 SALES REPRESENTATIVE, APPAREL TRIMMINGS (wholesale tr.)
Contacts apparel manufacturers to sell trimmings for apparel, such as dresses, blouses, shirts, and sweaters, and service of applying trim to apparel: Suggests design and trimming, such as embroidery, applique, tucking, or cording, to use on apparel. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

261.357-014 SALES REPRESENTATIVE, CANVAS PRODUCTS (wholesale tr.)
Sells canvas goods, such as awnings, tents, tarpaulins, covers, and bags, to retail outlets and industrial and commercial establishments, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.)

Master Title. May rent tents for events, such as circuses, conventions, or revival meetings. May measure area to be covered by canvas product. May deliver and install awnings [AWNING HANGER (construction; retail trade; tex. prod., nec)].
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

261.357-018 SALES REPRESENTATIVE, FOOTWEAR (wholesale tr.)
Sells footwear, such as shoes, boots, overshoes, and slippers, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

261.357-022 SALES REPRESENTATIVE, MEN'S AND BOYS' APPAREL (wholesale tr.)
Sells men's and boys' clothing, such as suits, coats, sport jackets, and slacks, utilizing knowledge of garment construction, fabrics, and styles. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

261.357-026 SALES REPRESENTATIVE, SAFETY APPAREL AND EQUIPMENT (wholesale tr.)
Sells safety apparel and equipment, such as goggles, masks, shoes, belts, helmets, fireproof suits, and hearing-protection devices, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. Tours industrial plant and suggests protective clothing and devices to prevent accidents.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

261.357-030 SALES REPRESENTATIVE, TEXTILES (wholesale tr.)
Sells textile fabrics, such as cottons, wools, synthetics, and combination blends, to garment manufacturers, retail stores, textile converters, and buying offices, utilizing knowledge of textile construction, fabrics, fashion, and textile products. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May sell raw fibers to spinning mills and be designated Sales Representative, Raw Fibers (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

261.357-034 SALES REPRESENTATIVE, UNIFORMS (retail trade; wholesale tr.)
Sells men's and women's uniforms for use in industrial and commercial establishments, medical-service organizations, and for such groups as bands and private organizations, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May take individual measurements for uniforms.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

261.357-038 SALES REPRESENTATIVE, WOMEN'S AND GIRLS' APPAREL (wholesale tr.)
Sells women's and girls' apparel, such as coats, dresses, lingerie, and accessories, utilizing knowledge of fabrics, style, and prices. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May specialize according to price range of garment sold. May sell only girls' or women's apparel and be designated Sales Representative, Girls' Apparel (wholesale tr.); Sales Representative, Women's Apparel (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

261.357-042 SALESPERSON, FURS (retail trade)
Sells ready-to-wear or custom-made fur garments and pieces, such as capes, coats, neckpieces, and stoles: Displays garments from stock and assists customer in trying on garment. Explains qualities of various kinds of fur, how fur garments are made, number of skins used, and when particular types of furs should be worn. Displays samples of fur skins and linings at request of customer desiring custom-made garment. Estimates cost of altering, remodeling, or repairing garment. Receives fur garment for storage, writes description on ticket, and estimates value of garment and storage cost. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

261.357-046 SALESPERSON, INFANTS' AND CHILDREN'S WEAR (retail trade)
Sells infants' and children's wearing apparel, nursery furniture, and bedding: Advises customer on durability of merchandise and quantity to purchase for infants. Suggests gift items or sizes of infants' clothes. May sell infants' and children's shoes. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 77

261.357-050 SALESPERSON, MEN'S AND BOYS' CLOTHING (retail trade)
Sells men's and boys' outer garments, such as suits, pants, and coats: Advises customer about prevailing styles and appropriateness of garments for particular occasions. Answers questions about fabric, design, and quality of garment. Selects standard-size garments nearest customer's measurements. May measure customer to determine garment size required, using measuring tape. May mark garment for alterations. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 81

261.357-054 SALESPERSON, MEN'S FURNISHINGS (retail trade) alternate titles: haberdasher
Sells men's furnishings, such as neckties, shirts, belts, hats, and accessories: Advises customer on coordination of accessories based on knowledge of current fashions. Answers questions relating to fabrics and quality of merchandise. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May be designated according to type of furnishing sold as Salesperson, Men's Hats (retail trade); Salesperson, Neckties (retail trade).
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

261.357-058 SALESPERSON, MILLINERY (retail trade) alternate titles: salesperson, women's hats
Displays, fits, and sells women's hats and related accessories: Observes customer's age, coloring, figure, and shape of face and selects hats for customer's consideration. Fits hats on customer. May manually adjust headband to alter hat size for customer. May also sell wigs and other hairpieces [SALESPERSON, WIGS (personal ser.; retail trade)]. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 77

261.357-062 SALESPERSON, SHOES (retail trade)
Fits and sells shoes, boots, and other footwear: Ascertains style and color of shoe customer wishes. Asks customer shoe size or measures customer's foot, using measuring device. Obtains footwear of specified style, color, and size from stock. Helps customer try on shoes, observes and questions customer about fit, and feels customer's feet through shoes to ensure fit. May stretch shoes, using hand stretcher, or insert insoles or instep pads to improve fit. May sell related products, such as handbags, hosiery, shoetrees, and shoe polish. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May be designated according to type of shoes sold as Salesperson, Children's Shoes (retail trade); Salesperson, Men's Shoes (retail trade); Salesperson, Women's Shoes (retail trade).
GOE: 08.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 81

261.357-066 SALESPERSON, WOMEN'S APPAREL AND ACCESSORIES (retail trade) alternate titles: salesperson, ladies' wear
Sells women's clothing and accessories, such as coats, sportswear, suits, dresses, formal gowns, lingerie, hosiery, belts, gloves, costume jewelry, handbags, and scarfs: Advises customer on current fashion and coordinating accessories. Answers questions regarding washability, durability, and color fastness of fabrics. May mark garments for alterations. Performs other duties as described under SALESPERSON (retail trade; wholesale trade) Master Title. May be designated according to specific category or type of item sold as Salesperson, Fashion Accessories (retail trade); Salesperson, Handbags (retail trade); Salesperson, Hosiery (retail trade); Salesperson, Lingerie (retail trade); Salesperson, Women's Dresses (retail trade); Salesperson, Women's Sportswear (retail trade.)
GOE: 08.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 81

261.357-070 SALESPERSON, YARD GOODS (retail trade)
Sells yard goods made from cotton, linen, wool, silk, synthetic fibers, and other materials: Unrolls bolts of cloth to display assortment of fabrics to customer. Advises customer as to kind and quantity of material required to make garments, bed clothes, curtains, and other articles. Discusses features and qualities of fabric, such as weave, texture, color, and washability. Suggests harmonizing or matching colors of fabrics. Measures and cuts length of fabric from bolt, using scissors and measuring machine or yardstick. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May sell sewing accessories and notions, such as dress patterns, needlecraft books, needles, thread, buttons, and zippers.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 77

261.357-074 SALESPERSON, LEATHER-AND-SUEDE APPAREL-AND-ACCESSORIES (retail trade)
Sells suede and leather apparel and accessories: Advises customer on selection of apparel and on coordination of accessories, such as handbags, belts, and boots. Answers questions regarding cleaning requirements, color fastness, and durability of article. Packs or wraps customer purchase. Checks merchandise deliveries against packing slips. Tickets merchandise, using ticket gun. Inventories stock. Posts daily sales from sales slips onto inventory sheet. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 86

262 SALES OCCUPATIONS, CHEMICALS, DRUGS, AND SUNDRIES

This group includes occupations concerned with selling organic and inorganic chemicals, drugs, medicines, cosmetics, toiletries, and allied products.

262.157-010 PHARMACEUTICAL DETAILER (wholesale tr.) alternate titles: detailer, pharmaceuticals
Promotes use of and sells ethical drugs and other pharmaceutical products to physicians, DENTISTS (medical ser.) 072.101-010, hospitals, and retail and wholesale drug establishments, utilizing knowledge of medical practices, drugs, and medicines: Calls on customers, informs customer of new drugs, and explains characteristics and clinical studies conducted with drug. Discusses dosage, use, and effect of new drugs and medicinal preparations. Gives samples of new drugs to customer. Promotes and sells other drugs and medicines manufactured by company. May sell and take orders for pharmaceutical supply items from persons contacted.

GOE: 08.01.01 STRENGTH: L GED: R5 M3 L5 SVP: 7 DLU: 77

262.357-010 SALES REPRESENTATIVE, CHEMICALS AND DRUGS (wholesale tr.)
Sells chemical or pharmaceutical products, such as explosives, acids, industrial or agricultural chemicals, medicines, and drugs, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

262.357-014 SALES REPRESENTATIVE, TOILET PREPARATIONS (wholesale tr.)
Sells toilet preparations, such as cosmetics, perfumes, soaps, bath oils, and facial and hair preparations, utilizing knowledge of promotion and display techniques. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

262.357-018 SALESPERSON, COSMETICS AND TOILETRIES (retail trade)
Sells cosmetics and toiletries, such as skin creams, hair preparations, face powder, lipstick, and perfume, to customers in department store or specialty shop: Demonstrates methods of application of various preparations to customer. Explains beneficial properties of preparations and suggests shades or varieties of makeup to suit customer's complexion. May weigh and mix facial powders, according to established formula, to obtain desired shade, using spatula and scale. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

262.357-022 SALES REPRESENTATIVE, WATER-TREATMENT CHEMICALS (wholesale tr.)
Contacts prospective customers to sell chemicals that treat water in boilers, cooling towers, and air wash systems: Schedules appointment to explain products and services available, inspects customer water system equipment, and prepares service estimates. Obtains sample of water to be analyzed, and ships sample to home office for analysis. Receives and reviews analysis, and contacts customers to recommend treatment to control levels of substances in water. Explains merits of program to persuade customer to purchase treatment package. Attempts to resolve problems encountered with customer's water-treatment process. Sells water-treatment chemicals to customer. Performs follow-up test on water in customer water system, utilizing test kit, knowledge of chemical treatment, and reference manual. Explains test results to customers. Observes changes in water color and recommends to customer amount and type of chemical additives for necessary water treatment.
GOE: 08.02.01 STRENGTH: S GED: R3 M3 L3 SVP: 7 DLU: 86

269 SALES OCCUPATIONS, MISCELLANEOUS CONSUMABLE COMMODITIES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with selling consumable commodities.

269.357-010 SALES REPRESENTATIVE, FUELS (retail trade; wholesale tr.)
Sells fuels, other than petroleum, such as coal, coke, and wood, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

269.357-014 SALES REPRESENTATIVE, PETROLEUM PRODUCTS (wholesale tr.)
Sells petroleum products, such as gasoline, oil, greases, and lubricants, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May be designated according to specific petroleum product sold as Sales Representative, Industrial Lubricants (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

269.357-018 SALES-PROMOTION REPRESENTATIVE (wholesale tr.)
Persuades customers to use sales promotion display items of wholesale commodity distributor: Visits retail establishments, such as department stores, taverns, supermarkets, and clubs to persuade customers to use display items to promote sale of company products. Delivers promotion items, such as posters, glasses, napkins, and samples of product, and arranges display of items in customer's establishment. May take sales order from customer.
GOE: 08.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 3 DLU: 77

27 SALES OCCUPATIONS, COMMODITIES, N.E.C.

This division includes occupations concerned with selling commodities, not included in Division 26, when knowledge of the commodities sold is required.

270 SALES OCCUPATIONS, HOME FURNITURE, FURNISHINGS, AND APPLIANCES

This group includes occupations concerned with selling household furniture; housefurnishings, such as china, glassware, silverware, floor coverings, bedding, curtains, draperies, upholstery, linens, brooms, and other household accessories; and home appliances, such as refrigerators, dishwashers, clothes washers and driers, sewing machines, vacuum cleaners, radios, television sets, phonograph and high fidelity equipment, household lamps, toasters, and room air-conditioners. Occupations concerned with selling industrial and commercial air-conditioning units and refrigerators are included in Group 274.

270.352-010 SALESPERSON, SEWING MACHINES (retail trade)
Demonstrates and sells sewing machines: Explains and demonstrates to prospective customers how to thread and adjust tensions on machine, use various attachments, and set machine to sew various stitches. Estimates and quotes trade-in allowance for customer's old machine. Determines extent of repair service required in response to customer's call and advises customer on minor repair procedures or arranges for service. May prepare machine rental contracts. May clean and maintain store demonstrator machines. May sell vacuum cleaners and sewing accessories. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

270.357-010 SALES REPRESENTATIVE, HOME FURNISHINGS (wholesale tr.)
Sells home furnishings, such as china, glassware, floor coverings, furniture, linens, brooms, and kitchen articles, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

270.357-014 SALES REPRESENTATIVE, HOUSEHOLD APPLIANCES (wholesale tr.)
Sells household appliances, such as refrigerators, ranges, laundry equipment, dishwashers, vacuum cleaners, and room air-conditioning units. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May train dealers in operation and use of appliances.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

270.357-018 SALESPERSON, CHINA AND SILVERWARE (retail trade; wholesale tr.)
Displays and sells china, glassware, and silver flatware and hollow ware: Advises customer on use of various silverware, china, and glassware items for specific purposes or decorative schemes. May be required to have knowledge of manufacturing methods, materials, and methods of decoration of china. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May be designated according to category of items sold as Salesperson, China And Glassware (retail trade; wholesale tr.); Salesperson, Silverware (retail trade).
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

270.357-022 SALESPERSON, CURTAINS AND DRAPERIES (retail trade)
Sells curtains, draperies, slipcovers, bedspreads, and yard goods from which these may be made: Displays samples of fabric and advises customer regarding color and pattern of material or style that will complement furnishings in customer's home. Selects size or number of curtains or drapes required, based on customer's specifications or window measurements. May estimate cost of fabricating draperies, curtains, or slipcovers. May measure and cut fabric from bolt. May also sell curtain and drapery rods and window shades. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May sell custom-made draperies to customers in their homes and be designated Salesperson, Custom Draperies (retail trade).
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

270.357-026 SALESPERSON, FLOOR COVERINGS (retail trade; wholesale tr.)
Displays and sells floor coverings, such as carpets, rugs, and linoleum, in department store, specialty store, or showroom: Shows rugs or samples of carpets to customer. Explains qualities of various rugs and carpets, such as composition, method of fabrication, and wearing qualities. Estimates cost and amount of covering required, referring to customer's floor plans. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May measure floor and sell floor coverings in customer's home or place of business and be designated Floor-Coverings Estimator (retail trade; wholesale tr.); Salesperson, Terrazzo Tiles (retail trade; wholesale tr.).
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

270.357-030 SALESPERSON, FURNITURE (retail trade)
Sells furniture and bedding in furniture or department store: Suggests furniture size, period style, color, fabric, and wood that will complement customer's home and other furnishings. Discusses quality of fabric and finish, and type and quality of construction with customer. May resolve customer complaints regarding delivery of damaged or incorrect merchandise. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 81

270.357-034 SALESPERSON, HOUSEHOLD APPLIANCES (retail trade)
Sells radios, television sets, and other household appliances to customers: Explains features of appliances, such as stoves, refrigerators, vacuum cleaners, and washing machines. Demonstrates television, radio, and phonograph sets. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May sell service contracts for appliances sold. May dem-

onstrate appliances on display floor of utility company and refer interested customers to appliance dealers for purchase.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

270.357-038 SALESPERSON, STEREO EQUIPMENT (retail trade)
Sells home-entertainment electronic sound equipment and parts, such as stereophonic phonographs, recording equipment, radios, speakers, tuners, amplifiers, microphones, and record changers. Explains features of various brands, meaning of technical manufacturers' specifications, and method of installation, applying knowledge of electronics. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: M GED: R4 M3 L4 SVP: 4 DLU: 77

271 SALES OCCUPATIONS, ELECTRICAL GOODS, EXCEPT HOME APPLIANCES

This group includes occupations concerned with selling electrical industrial apparatus, electric transmission and distribution equipment, electric lighting and wiring equipment, communications equipment, and electrical and electronic components and accessories.

271.257-010 SALES REPRESENTATIVE, COMMUNICATION EQUIPMENT (wholesale tr.)
Sells communication equipment, such as telephone and telegraph apparatus, intercommunication equipment, and radio broadcasting equipment, utilizing knowledge of electronics. Analyzes customer's communication needs and recommends equipment needed. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May train personnel of business establishments in use of equipment.
GOE: 08.01.01 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

271.352-010 SALES REPRESENTATIVE, RADIOGRAPHIC-INSPECTION EQUIPMENT AND SERVICES (wholesale tr.)
Sells radiographic equipment, supplies, and inspection services to foundries, railroads, and other establishments requiring radiographic devices and materials for such purposes as inspecting welds, detecting variances in product quality, and conducting research into structure of metals. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

271.352-014 SALES REPRESENTATIVE, ULTRASONIC EQUIPMENT (wholesale tr.)
Sells electronic devices that clean, test, or process materials by means of ultrahigh frequency sound waves, such as disintegrators for cleaning surgical instruments, electronic guns for bonding plastics, and sonic devices for detecting flaws in metals, cutting steel and diamonds, and separating fossils from rocks. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

271.354-010 SALESPERSON, ELECTRIC MOTORS (retail trade; wholesale tr.) alternate titles: electric-motor-repair clerk
Sells new and used fractional horsepower electric motors and estimates costs of repairs in manufacturing, retail, or repair establishment: Determines malfunction of motors received for repair, using test equipment. Estimates repair cost, using pricelist for parts and labor. Receives motors in exchange for new or used motors. Keeps records of exchange or sales of new and used motors. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May repair motors [ELECTRIC-MOTOR REPAIRER (any industry)].
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

271.357-010 SALES REPRESENTATIVE, ELECTRONICS PARTS (wholesale tr.)
Sells radio, television, and other electronics parts to establishments, such as appliance stores, dealers, and repair shops or electronics and aircraft manufacturing firms, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

271.357-014 SALES REPRESENTATIVE, VIDEOTAPE (wholesale tr.)
Sells television tape, used to record programs for delayed play-back, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 77

272 SALES OCCUPATIONS, FARM AND GARDENING EQUIPMENT AND SUPPLIES

This group includes occupations concerned with selling such items as tractors, farm implements and machinery, feed and feed supplements, fertilizer, and lawn and gardening tools, equipment, and accessories; and horticultural and nursery products, such as shrubs, trees, seeds, and bulbs.

272.357-010 SALES REPRESENTATIVE, ANIMAL-FEED PRODUCTS (wholesale tr.)
Sells livestock- and poultry-feed products to farmers and retail establishments: Suggests feed changes to improve breeding of fowl and stock. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May specialize in selling feed supplements and be designated Sales Representative, Cattle-And-Poultry Feed Supplements (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

272.357-014 SALES REPRESENTATIVE, FARM AND GARDEN EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells farm and garden machinery, equipment, and supplies, such as tractors, feed, fertilizer, seed, insecticide, and farm and garden implements, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May sell spare parts and service contracts for machinery and equipment.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

272.357-018 SALES REPRESENTATIVE, POULTRY EQUIPMENT AND SUPPLIES (retail trade; wholesale tr.)
Sells poultry equipment and supplies, such as brooders, coolers, feeders, graders, and washers: Advises customers on care and feeding of poultry, setting up of poultry equipment, and egg production problems, and suggests remedial measures for diseased poultry. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May sell chicks. May tend battery of brooders to hatch chicks.
GOE: 08.02.03 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

272.357-022 SALESPERSON, HORTICULTURAL AND NURSERY PRODUCTS (retail trade; wholesale tr.)
Sells container-grown plants and garden supplies in nursery, greenhouse, or department store: Advises customer on selection of plants and methods of planting and cultivation. Suggests trees and shrubbery suitable for specified growing conditions. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May water and trim growing plants on sales floor.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

273 SALES OCCUPATIONS, TRANSPORTATION EQUIPMENT, PARTS, AND SUPPLIES

This group includes occupations concerned with selling transportation equipment, such as motor vehicles (automobiles, trucks, motorcycles, and motor homes and campers) and equipment, aircraft and parts, boats, ships, marine supplies, railroad equipment, and camping, house, and utility trailers; and accessories, such as tires, tubes, and batteries. Occupations concerned with selling bicycles and small recreational vehicles, such as powered golf carts and snowmobiles, are included in Group 277. Occupations concerned with selling tractors, farm vehicles, and parts are included in Group 272.

273.253-010 SALES REPRESENTATIVE, AIRCRAFT (retail trade; wholesale tr.)
Sells aircraft to individuals and to business and industrial establishments: Discusses suitability of different types of aircraft to meet customer's requirements. Demonstrates aircraft in flight, stressing maneuverability, safety factors, and ease of handling. Verifies customer's credit rating. Prepares contracts for plane storage and maintenance service. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May appraise aircraft traded-in on new plane. May rent aircraft to customers [AIRPLANE-CHARTER CLERK (air trans.)]. May pilot aircraft during demonstrations and be required to have private pilot's license issued by Federal Aviation Administration.
GOE: 08.01.01 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 77

273.353-010 SALESPERSON, AUTOMOBILES (retail trade)
Sells new or used automobiles, trucks, and vans on premises of vehicle sales establishment: Explains features and demonstrates operation of car in showroom or on road. Suggests optional equipment for customer to purchase. Computes and quotes sales price, including tax, trade-in allowance, license fee, and discount, and requirements for financing payment of vehicle on credit. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May be designated Salesperson, New Cars (retail trade); Salesperson, Used Cars (retail trade).
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 81

273.357-010 SALES REPRESENTATIVE, AIRCRAFT EQUIPMENT AND PARTS (wholesale tr.)
Sells aircraft equipment and parts, such as engines, body-and-wing assemblies, power transmission assemblies, fuel tanks, bolts, fittings, tires, and electric motors or servomotors, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

273.357-014 SALES REPRESENTATIVE, AUTOMOTIVE-LEASING (business ser.)
Sells automotive-leasing services to businesses and individuals: Visits prospective customers to stimulate interest in establishing or expanding automotive-leasing programs. Explains advantages of leasing automotive equipment, such as tax savings and reduced capital expenditures. Recommends types and number of vehicles needed to satisfactorily perform job with minimal expense. Computes leasing charges, based on such factors as length of contract, antici-

pated mileage, and applicable taxes. Prepares and sends leasing contract to leasing agency. Performs other tasks to increase sales, such as evaluating advertising campaigns or revising administrative procedures. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

273.357-018 SALES REPRESENTATIVE, BOATS AND MARINE SUPPLIES (retail trade; wholesale tr.)
Sells boats and marine equipment and supplies, such as fixtures, pumps, instruments, cordage, paints, and motor parts: Shows boat on sales floor or shows catalog pictures and blueprints. Explains construction and performance of boat and differences between various types of marine equipment. Advises boat owners on selection of new equipment and problems pertaining to repairs. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May demonstrate boat in water. May arrange for delivery, registration, and inspection of boat. May sell water-sports equipment, such as water skis and scuba gear. May sell marine equipment and supplies, except boats, and be designated Sales Representative, Marine Supplies (retail trade; wholesale tr.).
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

273.357-022 SALES REPRESENTATIVE, MOTOR VEHICLES AND SUPPLIES (wholesale tr.) alternate titles: distributor, motor vehicles and supplies
Sells motor vehicles, such as automobiles, motorcycles, tractors, and trucks, and parts and supplies, such as batteries, tires, motors, chassis parts, tools, equipment, and lubricants, to dealers and service stations: Confers with dealer and reviews sales records to determine number of vehicles to order. Advises customer in methods of increasing sales volume, utilizing knowledge of sales promotion techniques. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May be designated according to items sold as Sales Representative, Automobile Parts And Supplies (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

273.357-026 SALES REPRESENTATIVE, RAILROAD EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells railroad equipment and supplies, such as rolling stock, signaling or braking devices, or switches: Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May arrange for installation of equipment.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

273.357-030 SALESPERSON, AUTOMOBILE ACCESSORIES (retail trade; wholesale tr.)
Sells automobile supplies and accessories, such as tires, batteries, seat covers, mufflers, and headlights: Ascertains make and year of automobile and reads catalog for stock number of item. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

273.357-034 SALESPERSON, TRAILERS AND MOTOR HOMES (retail trade) alternate titles: salesperson, recreational vehicles
Sells travel and camping trailers, motor homes, and truck campers to individuals: Determines customer's needs and exhibits vehicle of particular type or model. Demonstrates use of equipment and furnishings. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May prepare sales contract. May arrange financing and insurance. May sell mobile homes, motorcycles, and snowmobiles.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274 SALES OCCUPATIONS, INDUSTRIAL AND RELATED EQUIPMENT AND SUPPLIES

This group includes occupations concerned with selling construction machinery, such as power shovels, bulldozers, and concrete mixers; mining and well-drilling equipment; building equipment, materials, and supplies, such as commercial heating, air-conditioning, and refrigerating equipment, plumbing fixtures, roofing, glass, insulation, bricks, and lumber; and industrial machinery, equipment, and supplies, such as textile machines, lubricating and material-handling equipment, abrasives, gears, pipefittings, wire rope, cartons, drums, and barrels.

274.157-010 SALES REPRESENTATIVE, ELEVATORS, ESCALATORS, AND DUMBWAITERS (wholesale tr.)
Sells passenger and freight elevators, escalators, and dumbwaiters to building owners and contractors: Contacts property owners and agents of prospective customers to obtain blueprints of proposed new construction and submits to engineering department for bid. Confers with owners of existing structures to determine type of installation required. Inspects premises to verify feasibility of request and recommends changes for more efficient operation. Submits specifications, such as number, size, type, load capacity, and speed of elevator to engineering department. Presents bid to customer, explains cost factors, emphasizing characteristics, such as construction, performance, durability, and appearance of equipment. Follows up order to ensure lists of materials ordered are correct and work will be completed by project deadline. Contacts owner periodically to advise of progress of work, and attends sales and trade meetings and reads journals to keep informed of market conditions, business trends, and new developments in industry. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. If worker sells service and modernization contracts see SERVICE REPRESENTATIVE, ELEVATORS, ESCALATORS, AND DUMBWAITERS (wholesale tr.).
GOE: 08.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 5 DLU: 77

274.257-010 SALES REPRESENTATIVE, FOUNDRY AND MACHINE SHOP PRODUCTS (wholesale tr.)
Solicits from industrial establishments job contracts for manufacture of foundry or machine shop products, such as castings, machine parts, pipefittings, jigs, fixtures, and gears: Prepares price quotations or bids based on knowledge of material and labor costs and manufacturing schedules and processes. Submits bid to customer for examination and approval. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

274.357-010 SALES REPRESENTATIVE, ABRASIVES (wholesale tr.)
Sells abrasive materials in granulated or pellet form, and abrasive products, such as wheels, disks, and belts: Advises engineering, production, and purchasing staffs on processes and methods in use of abrasive materials. Determines abrasive requirements for specific grinding, buffing, and polishing operations on metal, plastic, ceramics, or wood materials. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-014 SALES REPRESENTATIVE, BOTTLES AND BOTTLING EQUIPMENT (wholesale tr.)
Sells bottles and bottling equipment, such as glass and plastic bottles and jars, bottle washers, and milk pasteurizers: Recommends specific types of bottles and equipment according to customer's specifications and type of bottling operation. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May specialize in selling either bottles or equipment and be designated Sales Representative, Bottles And Jars (wholesale tr.); Sales Representative, Bottling Equipment (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-018 SALES REPRESENTATIVE, BUILDING EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells building materials, equipment, and supplies, such as heating or air-conditioning equipment, insulation, glass, floor tiles, bricks, lumber, plumbing fixtures, and roofing, following blueprints and applying knowledge of building construction. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 80

274.357-022 SALES REPRESENTATIVE, CONSTRUCTION MACHINERY (wholesale tr.) alternate titles: sales representative, heavy equipment
Sells construction machinery, such as truck cranes, bulldozers, graders, concrete mixers, and trenchers: Recommends specific standard or modified machine best suited for customer's use. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May test-operate machinery at customer work site. May sell machine maintenance and repair services.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-026 SALES REPRESENTATIVE, CONTAINERS (wholesale tr.)
Sells fiberboard, metal, plastic, or wood containers, such as corrugated cartons, tin cans, steel pails and drums, and barrels, utilizing knowledge of sizes and uses of containers. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-030 SALES REPRESENTATIVE, DAIRY SUPPLIES (wholesale tr.)
Sells dairy supplies, such as cheese wrappings, rennet, filters, cheese coloring, thickening and stabilizing agents, and test indicators, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May sell food and dairy machines and equipment. May sketch floor plans to indicate placement of machines and equipment for maximum utilization of space.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-034 SALES REPRESENTATIVE, HARDWARE SUPPLIES (wholesale tr.)
Sells hardware supplies, such as plumbing and electrical supplies, power tools and handtools, paints and varnishes, plate glass, and builder's hardware, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-038 SALES REPRESENTATIVE, INDUSTRIAL MACHINERY (wholesale tr.)
Sells industrial machinery, such as metalworking, woodworking, food processing, and plastic fabricating machines, utilizing knowledge of manufacture,

operation, and uses of machinery: Computes cost of installing machinery and anticipated savings in production costs. Reviews existing plant machinery layout and draws diagrams of proposed machinery layout to effect more efficient space utilization, using standard measuring devices and templates. Arranges for installation of machinery. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. Worker is not required to become as involved in technical knowledge and plant efficiency as SALES ENGINEER (profess. & kin.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-042 SALES REPRESENTATIVE, INDUSTRIAL RUBBER GOODS (wholesale tr.)
Sells rubber products, such as gaskets, hose, belts, and washers, made to customer's specifications, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-046 SALES REPRESENTATIVE, LUBRICATING EQUIPMENT (wholesale tr.)
Sells lubricating equipment and parts to industrial establishments: Reviews existing plant layout and draws diagrams indicating proposed location of lubricating equipment. Recommends lubricants for particular equipment and machinery. Arranges for installation of lubricating equipment. Demonstrates operation of installed equipment. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-050 SALES REPRESENTATIVE, MATERIAL-HANDLING EQUIPMENT (wholesale tr.)
Sells material-handling equipment, such as conveyor systems, forklift trucks, chain hoists, and powered drum dumpers, to commercial and industrial establishments, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May contract for maintenance and repair service. May survey plant and recommend installation of specific type equipment.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-054 SALES REPRESENTATIVE, METALS (wholesale tr.)
Sells nonfabricated metals, such as brass, copper, iron, and steel, to industrial establishments, utilizing knowledge of metallurgy and applications of various metals. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-058 SALES REPRESENTATIVE, OIL FIELD SUPPLIES AND EQUIPMENT (wholesale tr.)
Sells and rents oil field supplies, machinery, equipment, and oil well services, such as directional drilling, electrical well logging, well fishing (recovering equipment from well bottoms), perforating, and temperature and pressure surveying, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May interpret graphs and survey data for customer. May be designated according to type of sales as Sales Representative, Oil Field Supplies (wholesale tr.); Sales Representative, Oil-Well Equipment Rentals (wholesale tr.); Sales Representative, Oil-Well Services (wholesale tr.).
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-062 SALES REPRESENTATIVE, PRINTING SUPPLIES (wholesale tr.)
Sells printing supplies, such as ink, plates, rollers, and type, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-066 SALES REPRESENTATIVE, TEXTILE DESIGNS (wholesale tr.)
Sells textile-pattern designs, and screens and rollers for printing patterns on greige, to textile converters: Displays design drawings to customer, examines sample of customer's greige on which pattern is to be printed, and aids customer in selection of colors and designs, utilizing knowledge of textile, inks, and types of weaves. Submits greige sample to own firm for printing of selected design and shows printed sample to customer for approval. Writes sales orders for designs and required printing screens and rollers. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

274.357-070 SALES REPRESENTATIVE, TEXTILE MACHINERY (wholesale tr.)
Sells textile machinery, such as knitting machines, carding machines, looms, and spinning frames, utilizing knowledge of uses and operation of machinery and performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-074 SALES REPRESENTATIVE, WELDING EQUIPMENT (wholesale tr.)
Sells welding equipment, materials, and supplies to machine shops and other industrial establishments, utilizing knowledge of tool-and-die making, welding techniques, and metalworking processes. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

274.357-078 SALES REPRESENTATIVE, WIRE ROPE (wholesale tr.)
Sells wire rope and cable for use in towing, hoisting, and related activities to logging companies, construction contractors, marine supply houses, and similar establishments, utilizing knowledge of construction industry and uses and application of wire rope. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

275 SALES OCCUPATIONS, BUSINESS AND COMMERCIAL EQUIPMENT AND SUPPLIES

This group includes occupations concerned with selling office machines, such as typewriters and data processing, computing, accounting, and duplicating machines; service industry machines, such as commercial vacuum cleaners and refrigerators; hotel and restaurant equipment and supplies; barber and florist supplies; shoe leather and findings; vending machines and cash registers; commercial laundry machinery and equipment; office and institutional furniture; and photocopy and microfilm equipment.

275.257-010 SALES REPRESENTATIVE, COMPUTERS AND EDP SYSTEMS (wholesale tr.)
Sells computers and electronic data processing systems to business or industrial establishments, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. Analyzes customer's needs and recommends computer system that best meets customer's requirements. Emphasizes salable features, such as flexibility, cost, capacity, and economy of operation. Consults with staff engineers on highly technical problems.
GOE: 08.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 77

275.357-010 SALES REPRESENTATIVE, BARBER AND BEAUTY EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells barber and beauty equipment and supplies, such as hydraulic chairs, counters, mirrors, hair driers, clippers, brushes, combs, cosmetics, hairdressings, and shampoos, to barber and beauty shops: Advises customers on layout of shop fixtures and equipment. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

275.357-014 SALES REPRESENTATIVE, CHURCH FURNITURE AND RELIGIOUS SUPPLIES (wholesale tr.)
Sells church furniture and supplies, such as pews, pulpits, lecterns, altarware, candles, statuary, and prayer books: Measures area to be furnished. Prepares drawings, estimates, and bids. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May be designated Sales Representative, Church Furniture (wholesale tr.); Sales Representative, Religious Supplies (wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

275.357-018 SALES REPRESENTATIVE, COMMERCIAL EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells commercial furniture, equipment, and supplies other than office machines to business establishments: Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May oversee installation of equipment. May train employees in use of equipment.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

275.357-022 SALES REPRESENTATIVE, CORDAGE (wholesale tr.)
Sells cordage and twine, such as manila, sisal, nylon, orlon, and cotton, to business and commercial establishments, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

275.357-026 SALES REPRESENTATIVE, HOTEL AND RESTAURANT EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells hotel and restaurant equipment and supplies, such as dishwashers, ranges, refrigerators, counters and booths, china, glassware, silverware, drapery and carpeting, and furniture, utilizing knowledge of design and layout of furniture or equipment. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

275.357-030 SALES REPRESENTATIVE, MORTICIAN SUPPLIES (wholesale tr.) alternate titles: sales representative, funeral equipment; sales representative, undertaker supplies
Sells funeral equipment and supplies, such as caskets, embalming fluids, and cosmetics, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

275.357-034 SALES REPRESENTATIVE, OFFICE MACHINES (retail trade; wholesale tr.)
Sells office machines, such as typewriters and adding, calculating, and duplicating machines, to business establishments: Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May instruct employees or purchasers in use of machine. May make machine adjust-

ments. May sell office supplies, such as paper, ribbons, ink, and tapes. May rent or lease office machines. May be designated according to type of machine sold as Sales Representative, Adding Machines (wholesale tr.); Sales Representative, Calculating Machines (wholesale tr.); Sales Representative, Cash Registers (wholesale tr.); Sales Representative, Dictating Machines (wholesale tr.); Sales Representative, Duplicating Machines (wholesale tr.); Sales Representative, Typewriters (wholesale tr.). May be designated: Sales Representative, Addressing Machines (wholesale tr.); Sales Representative, Bookkeeping-And-Accounting Machines (wholesale tr.); Sales Representative, Check-Endorsing-And-Signing Machines (wholesale tr.); Sales Representative, Stenographic Machines (wholesale tr.).
GOE: 08.02.03 STRENGTH: M GED: R4 M3 L4 SVP: 5 DLU: 77

275.357-038 SALES REPRESENTATIVE, PRESSURE-SENSITIVE TAPE (wholesale tr.)
Sells pressure-sensitive tape used to seal shipping containers and packages and for masking purposes, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

275.357-042 SALES REPRESENTATIVE, SCHOOL EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells school equipment and supplies, such as blackboards, art supplies, science and homemaking equipment, and school furniture, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

275.357-046 SALES REPRESENTATIVE, SHOE LEATHER AND FINDINGS (wholesale tr.)
Sells shoe leather and shoe repairing supplies, such as eyelets, welts, polish, and handtools, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

275.357-050 SALES REPRESENTATIVE, VENDING AND COIN MACHINES (wholesale tr.)
Sells coin-operated amusement and food vending machines, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

275.357-054 SALESPERSON, FLORIST SUPPLIES (wholesale tr.)
Sells florist supplies, such as artificial flowers, vases, ribbon, and wire, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

276 SALES OCCUPATIONS, MEDICAL AND SCIENTIFIC EQUIPMENT AND SUPPLIES

This group includes occupations concerned with selling dental, medical, veterinary, and ophthalmic equipment and supplies, such as surgical instruments, dental tools, eyeglasses, hearing aids, orthopedic appliances, artificial limbs, and related hospital supplies; and engineering, laboratory, and scientific instruments and supplies, such as slide rules, drafting implements, measuring and controlling instruments, lenses and optical instruments, and navigation and surveying instruments.

276.257-010 SALES REPRESENTATIVE, DENTAL AND MEDICAL EQUIPMENT AND SUPPLIES (wholesale tr.)
Sells medical and dental equipment and supplies, except drugs and medicines, to doctors, dentists, hospitals, medical schools, and retail establishments: Studies data describing new products to develop sales approach. Compiles data on equipment and supplies preferred by customers. Advises customers of equipment for given need based on technical knowledge of products. Provides customers with advice in such areas as office layout, legal and insurance regulations, cost analysis, and collection methods to develop goodwill and promote sales. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May be designated according to type of equipment and supplies sold as Sales Representative, Dental Equipment And Supplies (wholesale tr.). May sell orthopedic appliances, trusses, and artificial limbs and be designated Sales Representative, Prosthetic And Orthotic Appliances (wholesale tr.). May sell services of dental laboratory and be designated Sales Representative, Dental Prosthetics (wholesale tr.).
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

276.257-014 SALES REPRESENTATIVE, WEIGHING AND FORCE-MEASUREMENT INSTRUMENTS (wholesale tr.)
Sells spring scales and dynamometers, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. Evaluates customer's needs and emphasizes salable features, utilizing technical knowledge of capabilities and limitations of spring scales and dynamometers, engineering specifications, and catalogs. Worker is not required to be as technically knowledgeable as SALES ENGINEER (profess. & kin.) Master Title.
GOE: 08.01.01 STRENGTH: S GED: R5 M4 L5 SVP: 6 DLU: 77

276.257-018 SALESPERSON, ORTHOPEDIC SHOES (retail trade) alternate titles: orthopedic-shoe fitter
Evaluates customers' foot conditions and fits and sells corrective shoes, using knowledge of orthopedics or following prescription: Examines malformed or injured joints and bone structure of customer's feet, or reads physician's prescription to determine type of corrective shoe required. Selects shoes from stock or draws outline and takes measurements of customer's feet to order custom-made shoes. Examines shoes on customer's feet to verify correctness of fit. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

276.257-022 SALESPERSON, SURGICAL APPLIANCES (retail trade) alternate titles: fitter; surgical-appliance fitter
Fits and sells surgical appliances, such as trusses, abdominal supports, braces, cervical collars, and artificial limbs, using knowledge of anatomy, orthopedics, orthotics, and prosthetics: Measures customer with tape measure or follows prescription from physician to determine type and size of appliance required. Selects appliance from stock and fits appliance on customer. Writes specifications for and orders custom-made appliances. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May design and fabricate, or direct fabrication of custom-made appliances.
GOE: 08.02.02 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 77

276.354-010 HEARING AID SPECIALIST (retail trade) alternate titles: hearing instrument specialist; salesperson, hearing aids
Fits and sells hearing amplification systems to individuals in retail establishment: Tests auditory system of hearing-impaired individuals, using test equipment and applying standardized evaluation procedures, or receives individuals referred by physician for fitting and purchasing of hearing amplification systems. Interprets and evaluates auditory test results and confers with hearing-impaired individuals to demonstrate, select, fit, adapt, and modify hearing amplification systems for individuals. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May replace defective parts or make repairs to hearing amplification systems returned by customers. May make impression of client's ear to facilitate shaping of hearing aid. May visit homes of confined individuals to administer auditory system tests. May assist individuals in aural rehabilitation methods.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 78

276.357-010 SALES REPRESENTATIVE, ARCHITECTURAL AND ENGINEERING SUPPLIES (wholesale tr.)
Sells architectural and engineering supplies, such as protractors, slide rules, triangles, and T-squares, to business and industrial establishments: Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May deliver supplies ordered and collect payment for orders.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

276.357-014 SALES REPRESENTATIVE, PRECISION INSTRUMENTS (wholesale tr.)
Sells precision instruments, such as laboratory, navigation, and surveying instruments, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

276.357-018 SALES REPRESENTATIVE, VETERINARIAN SUPPLIES (wholesale tr.)
Sells veterinarian and animal hospital instruments, drugs, equipment, supplies, and packaged food, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

277 SALES OCCUPATIONS, SPORTING, HOBBY, STATIONERY, AND RELATED GOODS

This group includes occupations concerned with selling amusement devices, such as games and toys; sporting and athletic goods, such as firearms and ammunition, fishing tackle, golf and tennis goods, bicycles, billiard tables, skates, and gymnasium and playground equipment; photographic equipment and supplies, such as cameras, projectors, film, and enlargers; musical instruments and accessories, sheet music, phonograph records, and prerecorded tapes; pets and pet supplies; hobby goods, including stamps and coins for collectors; souvenirs, trinkets, and novelties; books and periodicals; and stationery goods and greeting cards. Occupations concerned with selling industrial photographic equipment, such as blueprinting and diazotype (white printing) equipment, are included in Group 274. Occupations concerned with selling commercial photographic equipment, such as photocopy and microfilm equipment, are included in Group 275.

277.354-010 SALESPERSON, PIANOS AND ORGANS (retail trade)
Sells pianos or organs: Plays instrument to demonstrate tonal qualities of piano or combinations of tones on organ. Discusses construction and operating techniques of organs, or construction of piano with effect on tone, quality, and limitations. Advises customer on style of organ or piano to harmonize with other furniture. May appraise used organs or pianos for trade-in allowance. May rent pianos or organs and prepare rental contracts. Performs duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

277.357-010 SALES REPRESENTATIVE, HOBBIES AND CRAFTS (retail trade; wholesale tr.)
Sells hobby and craft materials, such as leather, leatherworking tools, ceramic clay, paints, and model kits: Explains and demonstrates use of tools and mate-

rials to retail dealers. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

277.357-014 SALES REPRESENTATIVE, MUSICAL INSTRUMENTS AND ACCESSORIES (wholesale tr.)
Sells brass, percussion, stringed, and woodwind musical instruments, accessories, and supplies, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

277.357-018 SALES REPRESENTATIVE, NOVELTIES (wholesale tr.)
Sells novelties, such as souvenirs, toys, statuettes, glassware, and trinkets, to variety stores, toy stores, and carnivals, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

277.357-022 SALES REPRESENTATIVE, PUBLICATIONS (wholesale tr.) alternate titles: distributor, publications
Sells publications, such as books and periodicals: Suggests sales promotion techniques to retail dealers to increase sales. Performs other duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

277.357-026 SALES REPRESENTATIVE, RECREATION AND SPORTING GOODS (wholesale tr.)
Sells amusement and sporting goods, such as hunting and fishing equipment, camping equipment, athletic equipment, playground equipment, toys, and games: Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May be designated according to product sold as Sales Representative, Playground Equipment (wholesale tr.); Sales Representative, Sporting Goods (wholesale tr.); Sales Representative, Toys And Games (retail trade; wholesale tr.).
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

277.357-030 SALES REPRESENTATIVE, WRITING AND MARKING PENS (wholesale tr.)
Sells ballpoint, fountain, and felt-tipped pens to retail dealers, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 77

277.357-034 SALESPERSON, BOOKS (retail trade)
Sells books in book or department store: Suggests selection of books, based on knowledge of current literature and familiarity with publishers' catalogs and book reviews. Arranges books on shelves and racks according to type, author, or subject matter. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May specialize in selling technical publications.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

277.357-038 SALESPERSON, MUSICAL INSTRUMENTS AND ACCESSORIES (retail trade)
Sells brass, percussion, stringed, and woodwind instruments, musical accessories, equipment, and supplies: Explains function, mechanisms, and care of musical instruments to customer. Demonstrates and discusses quality of tone and variations in instruments of different prices. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May make repairs. May solicit business of orchestras or other musical groups. May rent instruments to customers and prepare rental contracts.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

277.357-042 SALESPERSON, PETS AND PET SUPPLIES (retail trade)
Sells pets and pet accessories, equipment, food, and remedies: Advises customer on care, training, feeding, living habits, and characteristics of pets, such as dogs, cats, birds, fish, and hamsters. Explains use of equipment, such as aquarium pumps and filters. Feeds and provides water for pets. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May clean cages and tanks. May suggest remedies for certain animal diseases or recommend services of VETERINARIAN (medical ser.).
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

277.357-046 SALESPERSON, PHONOGRAPH RECORDS AND TAPE RECORDINGS (retail trade)
Sells phonograph records and tape recordings in music store, record shop, or department store, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. Assists customers in selection of instrumental and vocal recordings in musical categories, such as popular, classical, folk, and religious, using knowledge of available releases, catalogs, and lists. May also sell recording maintenance equipment and supplies.
GOE: 08.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

277.357-050 SALESPERSON, PHOTOGRAPHIC SUPPLIES AND EQUIPMENT (retail trade; wholesale tr.)
Sells photographic and optical equipment and supplies, such as cameras, projectors, film, and binoculars: Demonstrates equipment to customer and explains functioning of various cameras, filters, lenses, and other photographic accessories. Receives film for processing. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May repair photographic or optical equipment.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

277.357-054 SALESPERSON, SHEET MUSIC (retail trade)
Sells books and sheet music for instrumental and vocal groups or soloists, utilizing knowledge of composers, compositions, and types of music, such as classical, popular, and sacred. Performs duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

277.357-058 SALESPERSON, SPORTING GOODS (retail trade)
Sells sporting goods and athletic equipment: Advises customer on type of equipment for specific purposes, such as length of golf club, size of grip on tennis racket, weight of bowling ball, length of skis and poles, and caliber and make of gun or rifle. Explains care of equipment, regulations of games, and fish and game laws. Informs customer of areas for hunting, fishing, or skiing, and cost of such outings. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May repair sporting goods.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

277.357-062 SALESPERSON, STAMPS OR COINS (retail trade; wholesale tr.)
Sells stamps or coins, or both, to collectors: Locates stamp or coin desired by customer. Discusses value of items with customer. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May appraise and classify stamps or coins, using magnifier and catalogs. May buy coins or stamps from collectors and wholesalers for resale.
GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

277.357-066 SALESPERSON, TOY TRAINS AND ACCESSORIES (retail trade)
Sells toy trains, model train kits, and accessories, such as tracks, batteries, tunnels, and signal lights, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 77

277.457-010 SALESPERSON, ART OBJECTS (retail trade)
Sells paintings, art materials, curios, and mirror and picture frames, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

279 SALES OCCUPATIONS, MISCELLANEOUS COMMODITIES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with selling commodities.

279.157-010 MANUFACTURERS' REPRESENTATIVE (wholesale tr.) alternate titles: manufacturers' agent
Sells single, allied, diversified, or multiline products to WHOLESALERS (wholesale tr.) I 185.167-070 or other customers for one or more manufacturers on commission basis: Contacts manufacturers and arranges to sell their products. Calls on regular or prospective customers to solicit orders. Demonstrates products and points out salable features. Answers questions concerning products, such as price, credit terms, and durability. Completes sales contracts or forms to record required sales information. May forward orders to manufacturer. May promote products at trade shows and conferences.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 81

279.357-010 SALES EXHIBITOR (nonprofit org.)
Sells variety of products made by the blind, such as wallets, mops, neckties, rugs, aprons, and babywear: Contacts businesses and civic establishments and arranges to exhibit and sell merchandise made by the blind on their premises. Sets up and displays merchandise to attract attention of prospective customers. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title.
GOE: 08.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

279.357-014 SALES REPRESENTATIVE, GENERAL MERCHANDISE (wholesale tr.)
Sells variety of merchandise, such as dry goods, notions, and housewares, to retail stores or other outlets, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May assemble and stock product displays in retail stores. May obtain credit information on prospective customers and forward findings to home office.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 89

279.357-018 SALES REPRESENTATIVE, JEWELRY (wholesale tr.)
Sells jewelry, jewels, and watches, performing duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

279.357-022 SALES REPRESENTATIVE, LEATHER GOODS (wholesale tr.)
Sells leather goods, such as billfolds, luggage, handbags, and utility kits, utilizing knowledge of kinds and grades of leather and product manufacturing process. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 80

279.357-026 SALES REPRESENTATIVE, PAPER AND PAPER PRODUCTS (wholesale tr.)

Sells paper and paper products, such as bags, containers, newsprint, wrapping paper, stationery, towels, and plates. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title. May be designated according to type of paper as Sales Representative, Printing Paper (wholesale tr.); or paper product sold as Sales Representative, Envelope (wholesale tr.).

GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

279.357-030 SALES REPRESENTATIVE, PLASTIC PRODUCTS (wholesale tr.)

Sells fabricated plastic products, such as boxes, shipping containers, and refrigerator linings. Prepares sketches and specifications for items to meet specific needs of customer. Performs duties as described under SALES REPRESENTATIVE (retail trade; wholesale tr.) Master Title.

GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

279.357-034 SALES REPRESENTATIVE, WATER-SOFTENING EQUIPMENT (retail trade; wholesale tr.)

Sells water softener tanks and service contracts to home owners, laundries, apartment houses, and motel owners: Calls on prospective customers from list furnished by company, or develops own sales leads by door-to-door canvassing. Tests water at location for hardness, acidity, and iron and sulfur content, using water analysis kit. Persuades customer to purchase water softener tank, if test results indicate need. Prepares sales contract and service agreement for customer, collects deposit, and issues receipt. Determines interest on time payment plans, using interest table. May examine water pipes in building and suggest location for tank.

GOE: 08.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

279.357-038 SALESPERSON-DEMONSTRATOR, PARTY PLAN (retail trade)

Displays and sells merchandise, such as clothes, household items, jewelry, toiletries, or toys, to guests attending house party: Confers with party sponsor to arrange date, time, and number of guests. Sets up display of sample merchandise. Meets guests and converses with them to establish rapport. Discusses items on display or demonstrates uses of product, and explains program to guests. Hands out catalogs or brochures that picture merchandise available. Writes orders for merchandise and arranges for payment. Delivers orders to sponsor or individual and collects monies due. May give small sample items to guests. May discuss program with guests to persuade them to sponsor house party by describing benefits derived from sponsorship. May assist sponsor to serve refreshments.

GOE: 08.02.05 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

279.357-042 SALESPERSON, BURIAL NEEDS (retail trade) alternate titles: salesperson, cemetery

Sells burial needs, such as cemetery plots and crypts, grave coverings, markers, and mausoleums: Contacts prospects at their homes in response to telephone inquiries, referrals from funeral homes, and leads from obituary notices. May sell monuments and similar memorials, either in employ of cemetery or monument firm. May specialize in one type of burial need and be designated Salesperson, Burial Plots (retail trade); Salesperson, Grave Coverings And Markers (retail trade).

GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

279.357-046 SALESPERSON, FLYING SQUAD (retail trade) alternate titles: salesperson, utility staff

Sells merchandise in any assigned department of sales establishment in substitute or supplementary capacity, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. Worker is experienced in selling merchandise in many departments and is assigned to particular department depending on store need.

GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

279.357-050 SALESPERSON, GENERAL HARDWARE (retail trade; wholesale tr.)

Sells hardware, such as nails, bolts, screws, hand-and-power tools, electrical equipment, plumbing supplies, garden tools, and paint: Advises customer on tools, hardware, and materials needed, and procedure to follow to complete task customer wishes to perform. Informs customer about quality of tools, hardware, and equipment, and demonstrates use. Performs related duties, such as estimating amount of paint required to cover given area, mixing paint, and cutting screen, glass, wire, or window shades to specified size. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May specialize in selling paint or wall coverings and be designated Salesperson, Paint (retail trade; wholesale tr.); Salesperson, Wall Coverings (retail trade; wholesale tr.).

GOE: 08.02.03 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 81

279.357-054 SALESPERSON, GENERAL MERCHANDISE (retail trade; wholesale tr.)

Sells variety of commodities in sales establishment, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May demonstrate use of merchandise. May examine defective article returned by customer to determine if refund or replacement should be made. May estimate quantity of merchandise required to fill customer's need.

GOE: 08.02.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 81

279.357-058 SALESPERSON, JEWELRY (retail trade)

Displays and sells jewelry and watches: Advises customer on quality, cuts, or value of jewelry and gems and in selecting mountings or settings for gems. Informs customer of various grades of watch movements and type of servicing offered by manufacturer. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May estimate cost of jewelry and watch repair. May suggest designs for custom jewelry. May sell flatware, hollowware, and tableware, and advise customer on quality, grades, and patterns.

GOE: 08.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

279.357-062 SALESPERSON, PARTS (retail trade; wholesale tr.) alternate titles: counter clerk; parts clerk

Sells automotive, appliance, electrical, and other parts and equipment in repair facility or parts store: Ascertains make, year, and type of part needed, inspects worn, damaged, or defective part to determine replacement required, or advises customer of part needed according to description of malfunction. Discusses use and features of various parts, based on knowledge of machine or equipment. Reads catalog, microfiche viewer, or computer for replacement part stock number and price. Advises customer on substitution or modification of part when replacement is not available. Examines returned part to determine if defective, and exchanges part or refunds money. Fills customer orders from stock. Marks and stores parts in stockroom according to prearranged system. Receives and fills telephone orders for parts. Performs other duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May measure engine parts, using precision measuring instruments, to determine whether similar parts may be machined down or built up to required size. Usually specializes in selling parts for one type of machinery or equipment and is designated according to part sold, as Counter Clerk, Appliance Parts (retail trade; wholesale tr.); Counter Clerk, Automotive Parts (retail trade; wholesale tr.); Counter Clerk, Farm Equipment Parts (retail trade; wholesale tr.); Counter Clerk, Industrial Machinery and Equipment Parts (retail trade; wholesale tr.); Counter Clerk, Radio, Television, and Electronics Parts (retail trade; wholesale tr.); Counter Clerk, Tractor Parts (retail trade; wholesale tr.); Counter Clerk, Truck Parts (retail trade; wholesale tr.).

GOE: 08.02.03 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 81

29 MISCELLANEOUS SALES OCCUPATIONS

This division includes occupations concerned with sales transactions, except those of sales representatives and salespersons which are included in Divisions 25, 26, and 27, and occupations closely related to sales transactions, even though they do not involve actual participation in such transactions.

290 SALES CLERKS

This group includes occupations concerned with selling, usually in a retail store, any of a large variety of inexpensive merchandise, usually without specializing in any single commodity and not requiring much more knowledge of merchandise than price.

290.477-010 COUPON-REDEMPTION CLERK (retail trade)

Redeems books of trading stamps or coupons in exchange for merchandise and vacation trips: Shows customer selection of merchandise in display catalog and aids customer to make selection of merchandise. Counts books and verifies number of coupons required for requested articles, and cancels books exchanged for merchandise, using canceling machine. Collects sales tax on merchandise. Orders or obtains merchandise from stockroom. Fills out order form to request merchandise from warehouse when items requested by customer are not in stock. Talks to customers to resolve complaints or problems about merchandise and stamps. May keep record of books redeemed, taxes collected, and merchandise distributed. May take inventory of stock. May arrange merchandise for display on counters, racks, shelves, or stands. May wrap items.

GOE: 07.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

290.477-014 SALES CLERK (retail trade)

Obtains or receives merchandise, totals bill, accepts payment, and makes change for customers in retail store such as tobacco shop, drug store, candy store, or liquor store: Stocks shelves, counters, or tables with merchandise. Sets up advertising displays or arranges merchandise on counters or tables to promote sales. Stamps, marks, or tags price on merchandise. Obtains merchandise requested by customer or receives merchandise selected by customer. Answers customer's questions concerning location, price, and use of merchandise. Totals price and tax on merchandise purchased by customer, using paper and pencil, cash register, or calculator, to determine bill. Accepts payment and makes change. Wraps or bags merchandise for customers. Cleans shelves, counters, or tables. Removes and records amount of cash in register at end of shift. May calculate sales discount to determine price. May keep record of sales, prepare inventory of stock, or order merchandise. May be designated according to product sold or type of store.

GOE: 09.04.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 82

290.477-018 SALES CLERK, FOOD (retail trade)

Obtains or prepares food items requested by customers in retail food store, totals customer bill, receives payment, and makes change: Fills customer order,

performing duties such as obtaining items from shelves, freezers, coolers, bins, tables, or containers; cleaning poultry; scaling and trimming fish; slicing meat or cheese, using slicing machine; preparing take-out sandwiches and salads; dispensing beverages; and warming food items in oven. Weighs items, such as produce, meat, and poultry to determine price. Lists and totals prices, using paper and pencil, calculator, or cash register. Informs customer of total price of purchases. Receives payment from customer for purchases and makes change. Bags or wraps purchases for customer. Cleans shelves, bins, tables, and coolers. Stamps, marks, or tags price on merchandise. Sets up displays and stocks shelves, coolers, counter, bins, tables, freezers, containers, or trays with new merchandise. May make deliveries to customer home or place of business [DELIVERER, MERCHANDISE (retail trade) 299.477-010]. May write orders, decorate cakes, or describe available specialty products, such as birthday cakes. May order merchandise from warehouse or supplier. May be designated according to type of food sold as Grocery Clerk (retail trade); Meat Counter Clerk (retail trade); Produce Clerk (retail trade) I; Sales Clerk, Fish (retail trade).
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L2 SVP: 3 DLU: 82

291 VENDING AND DOOR-TO-DOOR SELLING OCCUPATIONS

This group includes occupations concerned with hawking and selling merchandise or services on street, door to door, or at amusement and recreational facilities, such as sports arenas and nightclubs, using basket, pushcart, horse and wagon, stand, carrying case, or truck to carry merchandise.

291.157-010 SUBSCRIPTION CREW LEADER (retail trade)
Supervises and coordinates activities of workers engaged in selling magazine subscriptions door to door. Gives training to crew in company methods and procedures in selling and writing sales contract. Assigns crews to specified area. Reviews orders received by crewmembers. Compiles magazine sales records. May hire crewmembers.
GOE: 08.02.08 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

291.357-010 SALES REPRESENTATIVE, DOOR-TO-DOOR (retail trade) alternate titles: canvasser; peddler; solicitor
Sells merchandise or service, such as books, magazines, notions, brushes, and cosmetics, going from door to door without making appointments or following leads from management, other workers, or from listings in city and telephone directories: Displays sample products, explains desirable qualities of products, and leaves samples, or distributes advertising literature explaining service or products. Writes and submits orders to company. Delivers merchandise, collects money, and makes change. May contact individuals previously solicited in person, by telephone, or by mail to close sale. May travel from one area to another, or be assigned to specified territory.
GOE: 08.02.08 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 81

291.454-010 LEI SELLER (retail trade) alternate titles: lei maker
Makes and sells leis (wreaths or garlands of flowers) to persons arriving or departing on ships, or attending social functions, such as dances. Does not operate stand or permanent place of business. Sells individual flowers, bouquets, and accessories.
GOE: 08.03.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

291.457-010 CIGARETTE VENDOR (hotel & rest.)
Sells cigars, cigarettes, corsages, and novelties to patrons in hotels, restaurants, and nightclubs: Walks among guests carrying tray of articles and persuades patrons to make purchases. May order supplies. May wire flowers and attach ribbons to form corsages.
GOE: 08.03.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

291.457-014 LOUNGE-CAR ATTENDANT (r.r. trans.) alternate titles: sandwich seller; vendor
Sells beverages, cakes, candies, cigarettes, and sandwiches to passengers in railroad passenger coaches: Walks down aisle of car, with basket or cart containing items for sale, and calls out offerings. Serves items to passengers. Accepts money for items purchased and returns change. May sell newspapers, magazines, postcards, playing cards, and similar nonfood items only and be designated News Agent (r.r. trans.).
GOE: 08.03.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

291.457-018 PEDDLER (retail trade) alternate titles: hawker; huckster; vendor
Sells merchandise, such as fruit, vegetables, flowers, or ice cream, on streets or from door to door, usually using basket, pushcart, or truck to carry products. May attract attention by playing chimes or chanting song. May be designated according to product sold as Ice-Cream Vendor (retail trade); Vegetable Vendor (retail trade).
GOE: 08.03.01 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

291.457-022 VENDOR (amuse. & rec.) alternate titles: peddler
Sells refreshments, programs, novelties, or cushions at sports events, parades, or other entertainments: Circulates among patrons or spectators, calling out items for sale. Hands, passes, or throws item to purchaser, receives payment, and makes change as required. Checks out items to replenish stock and turns in monies from sales.
GOE: 08.03.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

292 ROUTE SALES AND DELIVERY OCCUPATIONS

This group includes occupations concerned with selling and delivering such items as baked goods, milk, ice, newspapers, and laundry and dry cleaning to customers by driving truck or other vehicle or walking along established route. Includes collecting coins from vending or amusement machines, juke boxes, parking meters, and pay telephones along established route. Occupations concerned with selling merchandise on street, from vehicle, or door to door are found in Group 291. Occupations concerned only with transporting goods by truck are found in Division 90.

292.137-010 COIN-MACHINE-COLLECTOR SUPERVISOR (clerical)
Supervises and coordinates activities of workers engaged in collecting money from meters, pay phones, amusement machines, jukeboxes, or vending machines: Assigns workers to routes and keeps records of areas to be serviced. Counts coins and computes amount due to agents and subscribers. May pay refunds. May schedule and coordinate delivery of merchandise to vending machines. Performs other duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.07.03 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

292.137-014 SUPERVISOR, ROUTE SALES-DELIVERY DRIVERS (retail trade; wholesale tr.) alternate titles: dispatcher, route sales-delivery drivers; route supervisor
Supervises and coordinates activities of DRIVERS, SALES ROUTE (retail trade; wholesale tr.) engaged in selling and distributing products or services: Plans routes and schedules drivers, vehicles, and deliveries and pickups based on driver, company, and customer information. Records drivers' attendance and time for payroll records. Informs DRIVERS, SALES ROUTE (retail trade; wholesale tr.) of location of accounts and of collection procedures. Demonstrates sales methods. Oversees loading and dispatching of trucks. May collect overdue payments. May collect daily cash receipts from drivers and record amounts in records. May solicit new accounts. May investigate customer complaints and pay claims for damaged articles. May drive vehicle to designated areas. May load vehicles. May compute payroll and distribute pay to subordinates. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to product sold as Supervisor, Newspaper Deliveries (wholesale tr.).
GOE: 08.02.07 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

292.353-010 DRIVER, SALES ROUTE (retail trade; wholesale tr.) alternate titles: delivery-route truck driver; route driver; truck driver, sales route
Drives truck or automobile over established route to deliver and sell products or render services, collects money from customers, and makes change: Drives truck to deliver such items as beer, soft drinks, bakery products, dry cleaning, laundry, specialty foods, and medical supplies to customer's home or place of business. Collects money from customers, makes change, and records transactions on customer receipt. Writes customer order and instructions. Records sales or deliveries information on daily sales or delivery record. Calls on prospective customers to solicit new business. Prepares order forms and sales contracts. Informs regular customers of new products or services. Listens to and resolves service complaints. May place stock on shelves or racks. May set up merchandise and sales promotion displays or issue sales promotion materials to customers. May collect or pick up empty containers or rejected or unsold merchandise. May load truck. May issue or obtain customer signature on receipt for pickup or delivery. May clean inside of truck. May perform routine maintenance on truck. May direct DRIVER HELPER, SALES ROUTE (retail trade; wholesale tr.) 292.667-010 to load and unload truck and carry merchandise. May be designated according to product delivered or service rendered.
GOE: 08.02.07 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 81

292.363-010 NEWSPAPER-DELIVERY DRIVER (wholesale tr.)
Drives truck or automobile over prescribed route to deliver newspapers to wholesale or retail newspaper dealers, or to bus, airline, or express stations for shipment: Loads newspapers onto vehicle. Reviews list of dealers, customers, or station drops for change in deliveries. Drives truck or automobile over prescribed route on city streets or rural roads. Delivers newspapers to dealers or individual subscribers at their homes or place of business, or to bus, airline, or express station for shipment. Keeps records of deliveries made. Collects receipts for deliveries to newsdealers. May pick up unsold newspapers and credit newsdealer's account. May collect payment for newspaper deliveries from customers. May keep records pertaining to driving expenses, such as mileage, oil, and gasoline. May stock newspapers in street sales rack, and collect coins from rack coin boxes. May distribute sales promotion material to customers with newspaper deliveries. May be designated according to publication delivered as Magazine-Delivery Driver (wholesale tr.).
GOE: 05.08.03 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

292.457-010 NEWSPAPER CARRIER (retail trade) alternate titles: carrier; newspaper deliverer
Delivers and sells newspapers to subscribers along prescribed route and collects money periodically: Purchases newspapers at wholesale price for resale to subscriber at retail rate. Walks or rides bicycle to deliver newspapers to subscribers. Keeps records of accounts. Contacts prospective subscribers along

route to solicit subscriptions. May attend training sessions to learn selling techniques. If worker delivers newspapers, using automobile or truck, see NEWSPAPER-DELIVERY DRIVER (wholesale tr.).
GOE: 09.04.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

292.463-010 LUNCH-TRUCK DRIVER (hotel & rest.) alternate titles: catering-truck operator; lunch-truck operator

Drives lunch truck over regular scheduled route, and sells miscellaneous food specialties, such as sandwiches, box lunches, and beverages, to industrial and office workers, students, and to patrons of sports and public events. Loads and unloads truck. Maintains truck and food-despensing equipment in sanitary condition and good working order. May prepare and wrap sandwiches for delivery. May push lunch-cart through departments of industrial establishment or office building to sell merchandise and be known as Lunch-Wagon Operator (hotel & rest.).
GOE: 09.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

292.483-010 COIN COLLECTOR (business ser.) alternate titles: route driver, coin machines; servicer, coin machines

Drives truck over established route to collect money from and refill coin-operated amusement-game machines, jukeboxes, and vending machines that dispense merchandise, such as cigarettes, coffee, food, beverages, and candy: Loads truck with supplies according to written or verbal instructions. Drives truck to establishment, collects coins, refills machine, cleans inside of machines that dispense food or beverages, and records amount of money collected. Turns in money to cashiering department at completion of route and unloads truck. Reports malfunctioning machines to maintenance department for repair. May perform minor repairs or adjustments on machines, using handtools, to correct malfunctions. May promote installation of new or additional coin-operated machines at locations of customers or potential customers. May be designated according to type of machine serviced as Amusement-Game Machine Coin Collector (business ser.); Jukebox Coin Collector (business ser.); Vending-Machine Coin Collector (business ser.).
GOE: 05.08.03 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

292.667-010 DRIVER HELPER, SALES ROUTE (retail trade; wholesale tr.) alternate titles: route driver helper

Aids DRIVER, SALES ROUTE (retail trade; wholesale tr.) in providing sales, services, or deliveries of goods to customers over an established route, performing any combination of the following duties: Loads and unloads truck at beginning and end of trip. Carries merchandise from truck to customer's home or store. Collects c.o.d. payments or obtains receipts. May drive to relieve driver. May solicit new business.
GOE: 08.02.07 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

292.687-010 COIN-MACHINE COLLECTOR (business ser.; tel. & tel.) alternate titles: coin-box collector; pay-station collector

Collects coins or coin boxes from parking meters or telephone pay stations: Unlocks telephone faceplate and removes box containing money. Inserts empty box and locks faceplate. Tags boxes to identify pay stations. Reports malfunctioning telephones or parking meters to repair department. Delivers boxes to central depot for machine counting, tabulating, and customer payment. May count coins and compute amount due subscriber, according to difference between minimum guaranteed rate and total cash in box. May pay subscriber percentage refund. May adjust or repair parking meters, using handtools. May keep records of collections, balances due, and refunds. May be designated according to type of equipment involved as Parking-Meter-Coin Collector (business ser.); Telephone Coin-Box Collector (tel. & tel.).
GOE: 07.07.03 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 87

293 SOLICITORS

This group includes occupations concerned with encouraging individuals to join, contribute to, or otherwise participate in activities or causes, such as joining clubs or organizations, contributing money or time to charitable causes, or donating blood.

293.137-010 SUPERVISOR, BLOOD-DONOR RECRUITERS (medical ser.)

Supervises and coordinates activities of BLOOD-DONOR RECRUITERS (medical ser.) engaged in soliciting blood donations from employees or members of companies, unions, and fraternal organizations: Selects, trains, and assigns BLOOD-DONOR RECRUITERS (medical ser.). Reviews records and reports to evaluate BLOOD-DONOR RECRUITER (medical ser.) performance and recommends personnel action when necessary. Analyzes and resolves work problems, or assists BLOOD-DONOR RECRUITER (medical ser.) in solving problems. Interprets blood-bank policies and procedures to staff. Attends management meetings to exchange ideas and information and discuss problems. Assists in preparation of annual budget by providing data and making recommendations. Serves as liaison between donor-enrollment unit and other units of blood bank. Occasionally answers requests for information from prospective or participating blood-donor groups. Occasionally speaks to interested donor groups about blood-bank program.
GOE: 11.09.02 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

293.157-010 FUND RAISER I (nonprofit org.)

Plans fund raising program for charities or other causes, and writes to, telephones, or visits individuals or establishments to solicit funds or gifts-in-kind: Compiles and analyzes information about potential contributors to develop mailing or contact list and to plan selling approach. Writes, telephones, or visits potential contributors and persuades them to contribute funds or gifts-in-kind by explaining purpose and benefits of fund raising program. Takes pledges or funds from contributors. Records expenses incurred and contributions received. May organize volunteers and plan social functions to raise funds. May prepare fund raising brochures for mail-solicitation programs. May train volunteers to perform certain duties to assist fund raising.
GOE: 11.09.02 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 87

293.357-010 BLOOD-DONOR RECRUITER (medical ser.)

Contacts fraternal, business, and labor organizations by telephone, in person, or by mail to solicit blood donations from employees or members for nonprofit blood bank: Develops list of prospective donor groups by using organizational, professional, and industrial listings and directories. Contacts prospective donor groups to explain requirements and benefits of participation in blood donor program. Visits prospective or participating blood donor group to discuss blood program. Distributes promotional material and uses audio-visual aids to motivate groups to participate in blood-donor program. Keeps records of organizations participating in program. Arranges specific date of blood collection for blood-donor group and confirms appointment in writing. Records information for mobile blood-collection unit, such as space available, staffing required, and number of donors anticipated. Consults blood bank records to answer questions, monitor activity, or resolve problems of blood donor groups. Prepares reports of blood-donor program and recruitment activities. May identify donors with rare-type blood from blood-bank records, and telephone donors to solicit and arrange blood donation.
GOE: 11.09.02 STRENGTH: L GED: R4 M2 L4 SVP: 3 DLU: 77

293.357-014 FUND RAISER II (nonprofit org.) alternate titles: contribution solicitor

Contacts individuals and firms to solicit donations for charity or other causes: Confers with supervisor, or reads potential donor list, to determine which individuals or firms to approach. Contacts individuals and firms by telephone, in person, or by mail to solicit funds or gifts-in-kind. Takes pledges for amounts or gifts-in-kind to be contributed, or accepts immediate cash payments. May sell emblems or other tokens of organization represented. May write letter to express appreciation for donation. May arrange for pick-up of gifts-in-kind.
GOE: 08.02.08 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 87

293.357-018 GOODWILL AMBASSADOR (business ser.) alternate titles: welcome-wagon host/hostess

Promotes goodwill and solicits trade for local business firms who are members of parent organization: Develops list of prospective clients from such sources as newspaper items, utility companies' records, and local merchants. Visits homes of new residents, prospective parents, recently married couples, engaged persons, and other prospects to explain and sell services available from local merchants. Usually presents token gifts or gift certificates to induce clients to use local services or purchase local merchandise. Prepares reports of services rendered and visits made for parent organization and member firms. May solicit new organization membership. May explain community services available. May organize clubs and plan parties for new residents.
GOE: 11.09.01 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

293.357-022 MEMBERSHIP SOLICITOR (any industry)

Solicits membership for club or trade association: Visits or contacts prospective members to explain benefits and costs of membership and to describe organization and objectives of club or association. May collect dues and payments for publications from members. May solicit funds for club or association [FUND RAISER (nonprofit org.) II]. May speak to members at meetings about services available.
GOE: 08.02.08 STRENGTH: L GED: R4 M3 L4 SVP: 4 DLU: 77

294 AUCTIONEERS

This group includes occupations concerned with selling commodities to highest bidder at auctions.

294.257-010 AUCTIONEER (retail trade; wholesale tr.)

Sells articles at auction to highest bidder: Appraises merchandise before sale and assembles merchandise in lots according to estimated value of individual pieces or type of article. Selects article to be auctioned at suggestion of bidders or by own choice. Appraises article and determines or asks for starting bid. Describes merchandise and gives information about article, such as history and ownership, in order to encourage bidding. Continues to ask for bids, attempting to stimulate buying desire of bidders. Closes sale to highest bidder. May write auction catalog and advertising copy for local or trade newspapers and periodicals. May be designated according to property auctioned as Auctioneer, Art (retail trade; wholesale tr.); Auctioneer, Automobile (wholesale tr.); Auctioneer, Furniture (retail trade; wholesale tr.); Auctioneer, Livestock (retail trade; wholesale tr.); Auctioneer, Real Estate (retail trade; wholesale tr.); Auctioneer, Tobacco (wholesale tr.).
GOE: 08.02.03 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

294.567-010 AUCTION CLERK (retail trade; wholesale tr.)

Records amounts of final bids for merchandise at auction sales, and receives money from final bidders at auction: Locates lot and item number of article

up for bidding on record sheet. Listens to amount of bids called for by AUCTIONEER (retail trade; wholesale tr.) and records final amount bid for article. Receives deposit money or full payment from final bidders.
GOE: 07.03.01 STRENGTH: S GED: R2 M2 L2 SVP: 3 DLU: 77

294.667-010 AUCTION ASSISTANT (retail trade; wholesale tr.) alternate titles: lot caller
Assists AUCTIONEER (retail trade; wholesale tr.) at auction by tagging and arranging articles for sale, calling out lot and item numbers, and holding or displaying articles being auctioned: Receives and stores incoming merchandise to be auctioned. Writes assigned record numbers on tags and wires tags to articles. Arranges articles into group lots, according to similarity of type of merchandise, such as household goods, art objects, jewelry, and furniture. Assigns lot and item numbers to grouped articles and records numbers on tags and in record book. Calls out lot and item numbers of article being auctioned and holds or otherwise displays article during bidding. Assists final bidders in locating purchased items.
GOE: 07.07.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

295 RENTAL CLERKS

This group includes occupations concerned with renting commodities, such as automobiles, bicycles, boats, films, televisions, tools and equipment, and trailers.

295.137-010 SUPERVISOR, SAFETY DEPOSIT (financial) alternate titles: safe deposit manager
Supervises and coordinates activities of workers engaged in renting and maintaining safe-deposit boxes: Turns controls to set vault clock for reopening. Authorizes forcing, servicing, and repair of safe-deposit box locks. Approves or disapproves rentals and requests for admittance to safe-deposit boxes in accordance with bank regulations. Develops, implements, and evaluates improved procedures for safe deposit operations. Monitors prices charged by competitors, recommends rental fees for safe-deposit boxes, and develops marketing plan to advertise safe-deposit services. Prepares cost, expense, and budget reports. Keeps departmental records. Trains and assigns duties to new employees. May open and close vault. May admit customer to vault. Performs duties as described under SUPERVISOR (clerical) Master Title.
GOE: 07.01.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 89

295.357-010 APPAREL-RENTAL CLERK (retail trade)
Rents formal clothes or costumes to customers: Talks to customer to determine clothing needs, date needed, quantity, style, color, and size. Shows customers available or appropriate garments. Explains rental fee to customer. Orders or reserves garment selected. Packages garments selected with complimentary accessories, such as cuff links, cummerbunds, neckties, and studs, and places in protective bag or box. Obtains suitable identification and deposit as security from customer. Computes rental charge and tax and prepares bill for customer. Collects money from customer or charges bill on customer's credit card. Examines garments for damages, and designates garments for cleaning or repair. May mark garments on customer for alteration. May sew buttons, hooks, hems, snaps, tears, or make minor alterations, by hand or using sewing machine. May mail or deliver rented garments to customer. May mail advertising material to customers. May return cleaned or repaired garments to stock. May be designated according to type of garments rented as Costume-Rental Clerk (retail trade); Formal-Wear-Rental Clerk (retail trade).
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

295.357-014 TOOL-AND-EQUIPMENT-RENTAL CLERK (business ser.; retail trade) alternate titles: rental clerk, tool-and-equipment
Rents tools and equipment to customers: Suggests tools or equipment, based on work to be done. Prepares rental form and quotes rental rates to customer. Starts power equipment to ensure performance prior to issuance to customer. Computes rental fee based on hourly or daily rate. Cleans, lubricates, and adjusts power tools and equipment. May drive truck or use handtruck to deliver tools or equipment to customer.
GOE: 09.04.02 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 77

295.357-018 FURNITURE-RENTAL CONSULTANT (retail trade) alternate titles: decorator consultant; rental clerk, furniture
Rents furniture and accessories to customers: Talks to customer to determine furniture preferences and requirements. Guides or accompanies customer through showroom, answers questions, and advises customer on compatibility of various styles and colors of furniture items. Compiles list of customer-selected items. Computes rental fee, explains rental terms, and presents list to customer for approval. Prepares order form and lease agreement, explains terms of lease to customer, and obtains customer signature. Obtains credit information from customer. Forwards forms to credit office for verification of customer credit status and approval of order. Collects initial payment from customer. Contacts customers to encourage followup transactions. May visit commercial customer site to solicit rental contracts, or review floor plans of new construction and suggest suitable furnishings. May sell furniture or accessories [SALESPERSON, FURNITURE (retail trade) 270.357-030].
GOE: 09.04.02 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 86

295.367-010 AIRPLANE-CHARTER CLERK (air trans.) alternate titles: aircraft charter dispatcher; airplane-rental clerk
Charters or rents airplanes to licensed pilots, licensed flight instructors, or charters aircraft to passenger-customers with company pilot: Determines purpose, destination, dates and time of flight, and number of passengers to select appropriate airplane for charter. Examines pilot's license to assure customer is qualified to pilot aircraft or is qualified to train students, or notifies company pilot of requested flight. Prepares rental or charter forms and secures customer's signature. Reserves airplane and records flight information in logbook. Informs other workers to fuel, clean, and move airplane to flight line. Computes customer's charges based on hours flown and company rate schedule. Receives payment or records credit charges. Prepares monthly bills. Requisitions and keeps records of office and airplane supplies. May inspect airplanes periodically to check if they are properly cleaned and serviced. May file flight plans with airport traffic controller. May provide pilots with weather forecasts and airplane specifications.
GOE: 07.04.03 STRENGTH: L GED: R4 M3 L4 SVP: 3 DLU: 77

295.367-014 BABY-STROLLER AND WHEELCHAIR RENTAL CLERK (retail trade) alternate titles: stroller rental clerk; wheelchair and baby-stroller rental clerk
Rents baby strollers and wheelchairs in shopping or recreation and amusement areas: Explains rental terms to customers. Unfolds or pushes stroller or wheelchair from storage area. Explains to customers how to use stroller or wheelchair. Accepts cash, driver's license, or credit cards as deposit for stroller or wheelchair. Accepts rental fee and makes change. Occasionally cleans strollers and wheelchairs and inspects for damage. May adjust parts of strollers or wheelchairs to correct defect, using handtools.
GOE: 09.04.02 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

295.367-018 FILM-RENTAL CLERK (business ser.; retail trade) alternate titles: audio-visual-equipment-rental clerk; film booker
Rents films and audio-visual equipment to individuals and organizations, such as schools, churches, clubs, and business firms: Views incoming films to familiarize self with content. Recommends films on specific subjects to show to designated group, utilizing knowledge of film content, availability of film, and rental charge. Determines and quotes rental charges for film, depending on purpose for showing film, number of times to be shown, and size of audience. Writes orders, listing shipping date, show date, and method of shipping film. Posts film rental dates on office records to complete reservation. May write or type correspondence, invoices, and shipping labels. May visit prospective or current customers to sell film-rental and audio-visual-equipment-renting service.
GOE: 11.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

295.367-022 SAFE-DEPOSIT-BOX RENTAL CLERK (financial)
Rents safe-deposit boxes to bank customers: Interviews customer to obtain information necessary to open account. Types rental contract and obtains customer signature. Collects initial rental fee from customer and writes receipt. Issues safe-deposit box key to customer. Files safe-deposit records, such as signature cards, rental contract, and access slips to vault. Admits customer to safe-deposit vault. Orders replacements for lost keys. Schedules repairs for safe-deposit box locks. Contacts vendor to forcibly open safe-deposit box when necessary, such as when customer loses key. Receives and records customer payment of yearly safe-deposit fee. May record box rental information, payment, and account changes, using computer terminal. May perform clerical duties.
GOE: 07.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 89

295.367-026 STORAGE-FACILITY RENTAL CLERK (business ser.; retail trade)
Leases storage space to customers of rental storage facility: Informs customers of space availability, rental regulations, and rates. Assists customers in selection of storage unit size according to articles or material to be stored. Records terms of rental on rental agreement form and assists customer in completing form. Photographs completed form and customer to establish identification record, using security camera. Computes rental fee and collects payment. Maintains rental status record and waiting list for storage units. Notifies customers when rental term is about to expire or rent is overdue. Inspects storage area periodically to ensure storage units are locked. Observes individuals entering storage area to prevent access to or tampering with storage units by unauthorized persons. Loads film into security and surveillance cameras, records dates of film changes, and monitors camera operations to ensure performance as required. Cleans facility and maintains premises in orderly condition.
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 2 DLU: 86

295.467-010 BICYCLE-RENTAL CLERK (retail trade)
Rents bicycles to patrons at beach, resort, or retail bicycle-rental store: Explains bicycle-rental rates and conditions to customer. Issues bicycle to customer and records time of transaction. Receives returned bicycles and examines them for abuse or breakage. Computes rental charge according to elapsed time and accepts payment, imposing specified fee for damage to bicycle. Records time bicycle was returned. Prepares cash report at end of shift. Tags bicycles needing repair or service. May adjust bicycle seat to suit customer. May receive money deposit or identification, such as driver's license, as security toward return of bicycle. May explain operation of bicycle and features of certain bicycles, such as gear shifting and hand brakes to customers.
GOE: 09.04.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

295.467-014 BOAT-RENTAL CLERK (amuse. & rec.)
Rents canoes, motorboats, rowboats, sailboats, and fishing equipment: Explains rental rates and operation of boats and equipment to customer. Assists customers in and out of boats. Launches and moors boats. Tows disabled boats to shore, using motorboat. Calculates rental payment and collects payment from

customer. May make minor adjustments and repairs on motors of motorboats, such as replacing battery, using handtools. May pump water out of boats, using mechanical pump.
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 2 DLU: 77

295.467-018 HOSPITAL-TELEVISION-RENTAL CLERK (business ser.)
Rents television sets to hospital patients: Determines, from hospital staff and records, names of patients requesting television rental service. Visits patient's room and unlocks and adjusts television set. Explains operation of remote controls and informs patient of rental fee. Periodically collects rental fees. Keeps records of television rentals and fees due. May deliver and connect portable television sets.
GOE: 09.04.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

295.467-022 TRAILER-RENTAL CLERK (automotive ser.)
Rents trailers, trucks, and power-driven mobile machinery and equipment: Talks with customer to determine type of equipment needed, such as vacation, boat, or open trailer, or moving truck or moving-van trailer, or cement mixer. Quotes rental rates and collects security deposit. Prepares rental-agreement form. Directs yard personnel to hitch trailer to customer's vehicle or bring truck or power-driven mobile equipment to customer. Computes rental charges, collects money, makes change, and returns deposit. May pull trailer into position and fasten appropriate hitch to customer's vehicle. May splice wires from trailer's taillights onto wires of customer's vehicle's taillights to provide brake and turn signals to trailer. May advise customer on type of equipment to rent, depending on work to be done. May rent power tools and equipment [TOOL-AND-EQUIPMENT-RENTAL CLERK (business ser.; retail trade)]. May be designated according to type of equipment rented as Construction-Machinery-And-Equipment-Rental Clerk (business ser.); Farm-Machinery-And-Equipment-Rental Clerk (business ser.); Truck Rental Clerk (automotive ser.).
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

295.467-026 AUTOMOBILE RENTAL CLERK (automotive ser.) alternate titles: automobile rental agent; automobile rental representative; car rental clerk
Rents automobiles to customers: Talks with customer to determine type of automobile and accessories desired, such as power steering and air-conditioning, location for pick up and return of automobile, and number of days needed for rental. Quotes cost of rental, based on type of automobile, daily rates, estimated mileage, insurance coverages requested, and amount of deposit required. Examines customer's driver's license and credit card, to determine validity of identification and eligibility for rental. Completes rental contract, explains rental policies and procedures, verifies credit, and obtains customer signature and deposit. Calls storage or service area to determine automobile availability and request delivery, and to check automobile upon return for damage and to record mileage and fuel level reading. Accepts automobiles returned by customer and computes rental charges based on type of automobile, length of time, distance traveled, taxes, and other expenses, such as late charges or damage fees incurred during rental. May reconcile cash or credit card slips with rental agreements and send to management. May inspect automobile fluid levels and add fluids, such as fuel, oil, and engine coolant to maintain automobile. May deliver automobile to customer. May keep log to track location of rented automobiles. May be designated according to type of automobile rented as Limousine Rental Clerk (automotive ser.).
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 81

296 SHOPPERS

This group includes occupations concerned with visiting competing stores to gather information, such as style, quality, and prices of competitive merchandise, to aid employing establishment in setting its prices and determining its buying policy; suggesting suitable purchases to customers; and purchasing items from other stores for individual customers.

296.357-010 PERSONAL SHOPPER (retail trade) alternate titles: professional shopper; shopper's aid; special shopper
Selects and purchases merchandise for department store customers, according to mail or telephone requests. Visits wholesale establishments or other department stores to purchase merchandise which is out-of-stock or which store does not carry. Records and processes mail orders and merchandise returned for exchange. May escort customer through store.
GOE: 09.04.02 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

296.367-010 AUTOMOBILE LOCATOR (retail trade)
Phones other new or used automobile dealers to locate type of automobile desired by customer. Prepares papers for transfer of automobile. Keeps records of automobiles traded.
GOE: 07.05.03 STRENGTH: S GED: R3 M2 L3 SVP: 3 DLU: 77

296.367-014 COMPARISON SHOPPER (retail trade; wholesale tr.)
Compares prices, packaging, physical characteristics, and styles of merchandise in competing stores: Visits stores to observe details of merchandise and gather information that will be valuable to employer in setting prices and determining buying policies. Verifies complaints of customers on price of merchandise by shopping at designated store to ascertain same quality and style for specified price. Prepares reports of findings. May check with BUYER (profess. & kin.) to verify that advertised merchandise will be available for customer purchase, and that merchandise, price, and sales dates are accurately described in advertising copy and illustration. May purchase merchandise in various locations for quality comparison tests.
GOE: 08.01.03 STRENGTH: L GED: R4 M2 L3 SVP: 3 DLU: 77

297 SALES PROMOTION OCCUPATIONS

This group includes occupations concerned with promoting interest on the part of customers to buy or rent merchandise or real estate by indirect selling techniques, such as modeling or demonstrating merchandise, instructing customers in arts and crafts involved in producing or using product, or giving guided tours to prospective buyers.

297.354-010 DEMONSTRATOR (retail trade; wholesale tr.)
Demonstrates merchandise and products to customers to promote sales: Displays product and explains features to customers. Answers customer's questions about product. Demonstrates use or production of product and simultaneously explains merits to persuade customers to buy product. May perform duties described under SALESPERSON (retail trade; wholesale tr.) Master Title. May suggest product improvements to employer. May use graphic aids, such as charts, slides, or films, to facilitate demonstration. May give product samples to customers. May conduct guided tours of plant where product is made. May train other demonstrators. May visit retail store or customer's home to demonstrate products. May be designated according to type merchandise demonstrated as Bakery Demonstrator (retail trade); Ceramic-Maker Demonstrator (retail trade); Cosmetics Demonstrator (retail trade); Food Demonstrator (retail trade; wholesale tr.); Glassware-Maker Demonstrator (retail trade); Housewares Demonstrator (retail trade; wholesale tr.).
GOE: 08.02.05 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 81

297.354-014 DEMONSTRATOR, KNITTING (retail trade)
Shows customers how to knit garments or accessories by hand: Demonstrates methods of holding needles and making various stitches. Interprets knitting terminology and how to read and follow knitting instructions for customer. Suggests yarn for use in particular style of garment and estimates amount to purchase. Takes customer's measurements for proposed garment and estimates number of stitches required for each part of garment. Sells customer yarn required for knitting specified garment or clothing accessory.
GOE: 08.02.05 STRENGTH: S GED: R4 M4 L4 SVP: 5 DLU: 77

297.357-010 DEMONSTRATOR, ELECTRIC-GAS APPLIANCES (utilities)
Demonstrates and explains operation and care of electric or gas appliances to utility company customers to promote appliance sales, and advises customers on energy conservation methods: Visits community organizations and schools to demonstrate operating features and care of appliances, such as air-conditioners, driers, ranges, and washers. Explains how electricity or gas is produced and transmitted, reasons for electricity and gas rate increases, and methods of efficiently using appliances to conserve energy and reduce utility bills. Lectures to dealers, sales personnel, and employees of utility company on efficient use and care of appliances, as part of training program. Answers telephone and written requests from customers for information about appliance use. May advise customers on related homemaking problems, such as kitchen planning, home lighting, heating-fuel conservation, food preparation, and laundering with new fabrics. May write articles and pamphlets on appliance use. May represent utility company as guest on radio or television programs to discuss conservation of electrical or gas energy.
GOE: 08.02.05 STRENGTH: L GED: R5 M3 L5 SVP: 6 DLU: 77

297.367-010 EXHIBIT-DISPLAY REPRESENTATIVE (any industry)
Attends trade, traveling, promotional, educational, or amusement exhibit to answer visitors' questions, explain or describe exhibit, and to protect it against theft or damage. May set up or arrange display. May demonstrate use of displayed items. May lecture and show slides. May collect fees or accept donations. May solicit patronage. May distribute brochures. May obtain names and addresses of prospective customers. May drive truck and trailer to transport exhibit. May be designated Trade-Show Representative (any industry).
GOE: 09.01.02 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 77

297.451-010 INSTRUCTOR, PAINTING (retail trade)
Selects and recommends materials for customers' use in ornamental painting, such as on plaques, lampshades, and fabrics. Demonstrates painting techniques and advises customers in various aspects of painting and materials to purchase. Does ornamental painting for other departments.
GOE: 01.06.03 STRENGTH: S GED: R3 M3 L3 SVP: 4 DLU: 77

297.454-010 DEMONSTRATOR, SEWING TECHNIQUES (retail trade)
Demonstrates sewing machines and their operation to retail store customers: Shows customers recommended procedures for cutting material from patterns, assembly and basting, and machine sewing. Explains and demonstrates use of various attachments, such as hemmer, edge stitcher, and ruffler. May instruct customers in alteration of garments.
GOE: 08.02.05 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

297.667-014 MODEL (garment; retail trade; wholesale tr.) alternate titles: fashion model; house model
Models garments, such as dresses, coats, underclothing, swimwear, and suits, for garment designers, BUYERS (profess. & kin.), sales personnel, and cus-

tomers: Dresses in sample or completed garments. Stands, turns, and walks to demonstrate features, such as garment quality, style, and design, to observers at fashion shows, private showings, and retail establishments. May inform prospective purchasers as to model, number, and price of garments and department where garment can be purchased. May select own accessories. May be designated according to size of garment modeled. May model for PHOTOGRAPHER, STILL (profess. & kin.) [MODEL, PHOTOGRAPHERS' (any industry)] or for ILLUSTRATOR (profess. & kin.) [MODEL, ARTISTS' (any industry.)].
GOE: 01.08.01 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

298 MERCHANDISE DISPLAYERS

This group includes occupations concerned with planning and executing commercial displays, such as those in windows and interiors of retail stores and those used in trade exhibitions.

298.081-010 DISPLAYER, MERCHANDISE (retail trade) alternate titles: decorator, store; display trimmer

Displays merchandise, such as clothes, accessories, and furniture, in windows, showcases, and on sales floor of retail store to attract attention of prospective customers: Originates display ideas or follows suggestions or schedule of MANAGER, DISPLAY (retail trade) and constructs or assembles prefabricated display properties from wood, fabric, glass, paper, and plastic, using handtools. Arranges properties, mannequins, furniture, merchandise, and backdrop according to prearranged plan or own ideas. Places price and descriptive signs on backdrop, fixtures, merchandise, or floor. May dress mannequins for use in displays and be designated Model Dresser (retail trade). May be designated according to area trimmed or decorated as Showcase Trimmer (retail trade); Window Dresser (retail trade).
GOE: 01.02.03 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

298.381-010 DECORATOR (any industry) alternate titles: commercial decorator

Prepares and installs decorations and displays from blueprints or drawings for trade and industrial shows, expositions, festivals, and other special events: Cuts out designs on cardboard, hard board, and plywood, according to motif of event. Constructs portable installations according to specifications, using woodworking power tools. Installs booths, exhibits, displays, carpets, and drapes, as guided by floor plan of building. Arranges installations, furniture, and other accessories in position shown in prepared sketch. Installs decorations, such as flags, banners, festive lights, and bunting, on or in building, street, exhibit halls, and booths, to achieve special effects [DECORATOR, STREET AND BUILDING (any industry)]. Assembles and installs prefabricated parts to reconstruct traveling exhibits from sketch submitted by client, using handtools.
GOE: 01.06.02 STRENGTH: L GED: R4 M4 L3 SVP: 7 DLU: 77

299 MISCELLANEOUS SALES OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with sales transactions.

299.137-010 MANAGER, DEPARTMENT (retail trade) alternate titles: department supervisor; manager, floor

Supervises and coordinates activities of workers in department of retail store: Interviews job applicants and evaluates worker performance to recommend personnel actions such as hiring, retention, promotion, transfer or dismissal of workers. Assigns duties to workers and schedules break periods, work hours, and vacations. Trains workers in store policies, department procedures, and job duties. Orders merchandise, supplies, and equipment. Records delivery of merchandise, compares record with merchandise ordered, and reports discrepancies to control costs and maintain correct inventory levels. Inspects merchandise to ensure it is correctly priced and displayed. Recommends additions to or deletions of merchandise to be sold in department. Prepares sales and inventory reports. Listens to customer complaints, examines returned merchandise, and resolves problems to restore and promote good public relations. May assist sales workers in completing difficult sales. May sell merchandise. May approve checks written for payment of merchandise purchased in department. May install and remove department cash-register-receipt tape and audit cash receipts. May perform customer service activities and be designated Customer Service Manager (retail trade). May plan department layout or merchandise or advertising display [DISPLAYER, MERCHANDISE (retail trade) 298.081-010]. May be designated according to department managed or type of merchandise sold as Candy-Department Manager (retail trade); Toy-Department Manager (retail trade); Produce-Department Manager (retail trade).
GOE: 11.11.05 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 78

299.137-014 SALES SUPERVISOR, MALT LIQUORS (wholesale tr.)

Supervises and coordinates activities of workers engaged in promoting and selling beer and other malt liquors for wholesale distributor: Accompanies workers on visits to customers to evaluate work performance, ascertain customer problems, and detect market trends. Reviews sales orders and records of new and delinquent accounts to ascertain market conditions and status of customers' accounts. Compiles sales figures and reports problems to management. Confers with management and sales personnel to formulate plans for meeting competition and improving sales. Adjusts customers' complaints.
GOE: 08.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

299.137-018 SAMPLE-ROOM SUPERVISOR (textile) alternate titles: sample supervisor

Supervises and coordinates activities of workers engaged in preparing such advertising media as sample books and swatches for sales force and customers of textile manufacturing or finishing concerns. Distributes sample books and other media to customers and advertising agencies. Performs other duties as described under SUPERVISOR (any industry) Master Title. May compare samples with cloth lots for style and color specifications.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

299.137-022 SUPERVISOR, ICE STORAGE, SALE, AND DELIVERY (food prep., nec) alternate titles: ice platform supervisor

Supervises and coordinates activities of workers engaged in storing, delivering, and selling ice. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 09.04.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

299.137-026 SUPERVISOR, MARINA SALES AND SERVICE (retail trade)

Supervises and coordinates activities of workers engaged in launching, retrieving, and servicing boats, and selling sport fishing equipment and supplies: Assists workers in launching and retrieving trailer-mounted boats, using dock crane and electric winch. Services boats with fuel and assists in casting off and tying up boats. Loads or unloads fishing and propulsion equipment from boats. Demonstrates sport fishing merchandise, such as fishing rods and reels, electronic communication and navigational equipment, and protective clothing to customers. Orders fuel for boats, and fishing equipment and supplies, such as rods and reels, bait, and ice. Inventories stock. Trains new workers in job duties.
GOE: 09.04.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

299.167-010 CIRCULATION-SALES REPRESENTATIVE (print. & pub.)

Promotes and coordinates sale and distribution of newspapers in areas served by franchised wholesale distributors: Surveys urban and suburban areas to determine newspaper sales potential, using statistical tables, and recommends new outlets and locations for newsstands, street-sale racks, and carrier routes. Schedules delivery and distribution of newspapers and regulates size of orders to maintain maximum sales with minimum return of unsold papers. Evaluates dealer sales and assists dealers through sales promotion and training programs. Inspects routes to ensure prompt and regular delivery of newspapers to distributors, dealers, carriers, and vending machines. Distributes and explains circulation instructions and changes to distributors and dealers, and investigates and adjusts dealer complaints. Examines and investigates applications for sale or transfer of franchises. Investigates delinquent accounts and makes collections. Instructs drivers, dealers, and carriers in sales techniques to improve sales. Lays out home delivery routes and organizes carrier crews. Analyzes sales statistics to assist management in circulation planning. Reports on sales and activities of competitors. Writes promotional bulletins to notify dealers and carriers of special sales promotions and offers. Arranges for sale of newspapers at special events and sale of special issues and editions in case of important news breaks.
GOE: 11.09.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

299.251-010 SALES-SERVICE REPRESENTATIVE, MILKING MACHINES (retail trade)

Sells, installs, and repairs milking equipment: Calls on farmers to solicit repair business and to sell new milking equipment, such as vacuum pumps, buckets, pipelines, and replacement parts. Demonstrates milking machines. Cuts and threads pipe and attaches fittings, using plumber's tools, to install pipelines. Cleans and flushes pipelines, and repairs pulsators and vacuum pumps.
GOE: 08.02.02 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

299.357-010 LINEN CONTROLLER (laundry & rel.)

Contacts customers of linen rental service to discuss inventory control and usage of rented articles and to solicit new business: Examines rented articles and discusses with customers selection and use of articles to prevent abuse. Reviews customer inventory records to determine charges for replacement of damaged articles. Recommends account cancellation when customers continue to ruin articles. Solicits new business and estimates required inventory. May inspect plant equipment for defects that stain or tear articles during laundry process.
GOE: 08.02.06 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

299.357-014 TELEPHONE SOLICITOR (any industry) alternate titles: telemarketer; telephone sales representative

Solicits orders for merchandise or services over telephone: Calls prospective customers to explain type of service or merchandise offered. Quotes prices and tries to persuade customer to buy, using prepared sales talk. Records names, addresses, purchases, and reactions of prospects solicited. Refers orders to other workers for filling. Keys data from order card into computer, using keyboard. May develop lists of prospects from city and telephone directories. May type report on sales activities. May contact DRIVER, SALES ROUTE (retail trade; wholesale tr.) 292.353-010 to arrange delivery of merchandise.
GOE: 08.02.08 STRENGTH: S GED: R3 M3 L3 SVP: 3 DLU: 88

299.357-018 WEDDING CONSULTANT (retail trade)

Advises prospective brides in all phases of wedding planning, such as etiquette, attire of wedding party, and selection of trousseau: Compiles list of pro-

spective brides from newspaper announcements of engagements. Mails promotional material to offer own and store's services as consultant. Recommends trousseau for bride, and costumes and accessories for attendants. Advises bride on selection of silverware style and pattern, china, glassware, stationery, invitations, flowers, and catering service. May display and sell wedding trousseau to bride, and attire for attendants, and silverware, china, and glassware to brides and wedding gift purchasers, performing duties as described under SALESPERSON (retail trade; wholesale tr.) Master Title. May compile and maintain gift register. May arrange for photographers to take pictures of wedding party. May attend rehearsals and wedding ceremony to give advice on etiquette. May accompany bride when shopping in store or shop for her.
GOE: 08.02.06 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

299.361-010 OPTICIAN, DISPENSING (optical goods; retail trade)
Fills ophthalmic eyeglass prescriptions and fits and adapts lenses and frames, utilizing written optical prescription: Evaluates prescription in conjunction with client's vocational and avocational visual requirements. Determines client's current lens prescription, when necessary, using lensometer or lens analyzer and client's eyeglasses. Recommends specific lenses, lens coatings, and frames to suit client needs. Assists client in selecting frames according to style and color, coordinating frames with facial and eye measurements and optical prescription. Measures client's bridge and eye size, temple length, vertex distance, pupillary distance, and optical centers of eyes, using millimeter rule and light reflex pupillometer. Prepares work order and instructions for grinding lenses and fabricating eyeglasses. Verifies finished lenses are ground to specification. Heats, shapes, or bends plastic or metal frames to adjust eyeglasses to fit client, using pliers and hands. Instructs clients in adapting to, wearing, and caring for eyeglasses. Sells optical goods, such as binoculars, plano sunglasses, magnifying glasses, and low vision aids. Repairs damaged frames. May be required to hold license issued by governing state. May fabricate lenses to prescription specifications. May select and order frames for display. May grind lens edges or apply coating to lenses. May manage one or more optical shops. May compute amount of sale and collect payment for services. May fit contact lenses only and be designated Optician, Contact-Lens Dispensing (optical goods; retail trade).
GOE: 05.10.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 81

299.361-014 OPTICIAN APPRENTICE, DISPENSING (optical goods; retail trade)
Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.10.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

299.364-010 DRAPERY AND UPHOLSTERY MEASURER (retail trade) alternate titles: upholstery and drapery measurer
Calls at customers' homes to take measurements for and estimate cost of fabricating draperies and window shades, slipcovers, and upholstery: Measures area of furniture to be covered. Draws sketches to scale of work to be done. Discusses selection of fabric and other materials with customer, using material samples, and informs customer of material, fabrication, and installations costs. May be designated according to specialty as Slip-Cover Estimator (retail trade); Window-Shade Estimator (retail trade).
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L2 SVP: 6 DLU: 77

299.364-014 GIFT WRAPPER (retail trade) alternate titles: wrapper
Wraps and decorates customer's purchases with gift-wrapping paper, ribbons, bows, and tape in retail store. May collect money and make change for gift-wrapping service. May assist customer to select appropriate wrapping materials.
GOE: 01.06.03 STRENGTH: L GED: R3 M2 L1 SVP: 3 DLU: 77

299.367-010 CUSTOMER-SERVICE CLERK (retail trade) alternate titles: customer-service specialist, post exchange
Performs any combination of following tasks in post exchange: Arranges for gift wrapping, monogramming, printing, and fabrication of such items as desk nameplates and rubber stamps, and repair or replacement of defective items covered by warranty. Takes orders for such items as decorated cakes, cut flowers, personalized greeting cards and stationery, and merchandise rentals and repairs. Prepares special order worksheet. Keeps record of services in progress. Notifies customer when service is completed and accepts payment. Acts as WEDDING CONSULTANT (retail trade). Assists customers to select and purchase specified merchandise [PERSONAL SHOPPER (retail trade)]. Keeps records of items in layaway, receives and posts customer payments, and prepares and forwards delinquent notices [LAYAWAY CLERK (retail trade)]. Issues temporary identification cards from information on military records. Approves customer's checks and provides check cashing service according to exchange policy. Answers customer's telephone, mail, and in-person inquiries and directs customers to appropriate sales area [INFORMATION CLERK (clerical)]. Resolves customer complaints and requests for refunds, exchanges, and adjustments. Provides customers with catalogs and information concerning prices, shipping time, and costs.
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

299.367-014 STOCK CLERK (retail trade) alternate titles: stock clerk, self-service store
Inventories, stores, prices, and restocks merchandise displays in retail store: Takes inventory or examines merchandise to identify items to be reordered or replenished. Requisitions merchandise from supplier based on available space, merchandise on hand, customer demand, or advertised specials. Receives, opens, and unpacks cartons or crates of merchandise, checking invoice against items received. Stamps, attaches, or changes price tags on merchandise, referring to price list. Stocks storage areas and displays with new or transferred merchandise. Sets up advertising signs and displays merchandise on shelves, counters, or tables to attract customers and promote sales. Cleans display cases, shelves, and aisles. May itemize and total customer merchandise selection at check out counter, using cash register, and accept cash or charge card for purchases. May pack customer purchases in bags or cartons. May transport packages to specified vehicle for customer. May be designated according to type of merchandise handled as Baked-Goods Stock Clerk (retail trade); Delicatessen-Goods Stock Clerk (retail trade); Discount-Variety-Store Clerk (retail trade); Liquor-Store Stock Clerk (retail trade); Meat Stock Clerk (retail trade); Pharmacy Stock Clerk (retail trade); Produce Stock Clerk (retail trade); or type of store worked in as Supermarket Stock Clerk (retail trade).
GOE: 05.09.01 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 81

299.367-018 WATCH-AND-CLOCK-REPAIR CLERK (retail trade)
Receives clocks and watches for repairs: Examines defective timepieces to identify malfunction, using loupe and handtools, and estimates cost of repairs, using knowledge of repairs and cost charts. Forwards timepiece to workshop with notation of repairs needed. May keep list of repairs and costs. May make minor repairs, such as replacing crystals or bands. May estimate cost to repair jewelry.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

299.377-010 PLATFORM ATTENDANT (food prep., nec) alternate titles: ice seller
Sells ice to customers from platform of ice plant: Pulls ice from storage room chute or conveyor with pair of ice tongs in quantities desired by customer or as specified on written wholesale order and slides ice across platform and into delivery trucks. Obtains signature of driver or wholesale charge-account customers on order. Cuts portions of ice from block for retail customers, using ice pick, and loads ice into car, using tongs. Accepts payment for ice sold. Keeps daily inventory record of ice on hand, record of sales, cash received, and orders filled.
GOE: 09.04.02 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

299.387-010 DRAPERY AND UPHOLSTERY ESTIMATOR (retail trade)
Estimates price of making and installing household accessories, such as draperies, slipcovers, window shades, and furniture upholstery: Computes cost of fabric and hardware, according to measurements, work specifications, and type of fabric to be used, using calculator. Itemizes cost of labor in making and installing goods. Records total price on sales check or contract. May contact customer to obtain additional information about order. May confer with ARCHITECTS (profess. & kin.) and interior decorators to obtain additional information when computing estimates for commercial orders. May take measurements for draperies, upholstery, slip covers, or shades in customer's home [DRAPERY AND UPHOLSTERY MEASURER (retail trade)]. May specialize in estimating price of specific type of household accessory and be designated Drapery Estimator (retail trade); Upholstery Estimator (retail trade).
GOE: 05.09.02 STRENGTH: S GED: R3 M3 L2 SVP: 5 DLU: 77

299.387-014 STAMP ANALYST (retail trade) alternate titles: philatelic consultant
Selects stamps to mail to customers on approval, based on customers' current orders or record of amount and type of past purchases.
GOE: 07.07.02 STRENGTH: S GED: R4 M2 L3 SVP: 6 DLU: 77

299.387-018 STAMP CLASSIFIER (retail trade)
Classifies stamps according to value and condition preparatory to selling to collectors: Sorts stamps into various classes. Examines stamp and determines value, using stamp catalog as guide.
GOE: 05.09.01 STRENGTH: S GED: R4 M2 L3 SVP: 6 DLU: 77

299.467-010 LAYAWAY CLERK (retail trade) alternate titles: will-call clerk
Stores and releases merchandise and receives payments for merchandise held in layaway department: Places ordered merchandise on shelves in stockroom. Receives payments on account and final payments for merchandise and issues receipts, using cash register. Keeps records of packages held, amount of each payment, and balance due. Contacts customer when specified period of time has passed without payment to determine if customer still wants merchandise. Releases merchandise to customer upon receipt of final payment, or when customer opens charge account, or routes merchandise for delivery to shipping or delivery department. Packs merchandise when picked up by or being delivered to customer.
GOE: 07.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

299.477-010 DELIVERER, MERCHANDISE (retail trade)
Delivers merchandise from retail store to customers on foot, bicycle, or public conveyance: Unpacks incoming merchandise, marks prices on articles, and stacks them on counters and shelves [STOCK CLERK (retail trade) 299.367-014]. Walks, rides bicycle, or uses public conveyances to deliver merchandise to customer's home or place of business. Collects money from customers or signature from charge-account customers. Sweeps floors, runs errands, and waits on customers [SALES CLERK (retail trade) 290.477-014]. May drive light truck to deliver orders. May be designated according to merchandise delivered as Deliverer, Food (retail trade); Deliverer, Pharmacy (retail trade).

GOE: 09.04.02 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

299.587-010 PRODUCE WEIGHER (retail trade)
Weighs produce selected by customer in self-service store. Marks price on bag. May unpack produce, stock counters, arrange produce in attractive displays, and clean counters, display tables, and work area.
GOE: 09.04.02 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

299.647-010 IMPERSONATOR, CHARACTER (any industry)
Impersonates traditional holiday or storybook characters, such as Santa Claus, Snow White, and the Three Little Pigs, to promote sales activity in retail stores, at conventions or exhibits, and to amuse children at hospitals, amusement parks and private parties. Wears character costumes and impersonates characters portrayed to amuse children and adults. May hand out samples or presents, demonstrate toys, pose for pictures, and converse with children and adults. May appear in costume parade. May solicit donations on street for charitable purposes. May be designated according to character portrayed as Easter Bunny (any industry); Santa Claus (any industry); Santa's Helper (any industry).
GOE: 01.07.02 STRENGTH: L GED: R3 M1 L3 SVP: 2 DLU: 77

299.667-010 BILLPOSTER (any industry) alternate titles: sign poster
Places posters and banners in prominent places to advertise entertainment, political event, or product: Secures permission from owner to place posters and banners on private property. Displays posters in windows of stores, restaurants, and other public places. Fastens banners and posters to fences, poles, and sides of buildings, using paste, twine, tacks and hammer, hand staplers, and ladders.
GOE: 05.12.12 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

299.667-014 STOCK CHECKER, APPAREL (retail trade)
Gathers and counts garments tried on by customers in fitting rooms of retail store: Hangs garments according to size on display racks, and refastens belts, buttons, and zippers on garments tried by customers. Counts number of garments carried in and out of dressing rooms to assure no garments are missing. May sew on missing and loose buttons, hooks, and loops.
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

299.677-010 SALES ATTENDANT (retail trade) alternate titles: attendant, self-service store
Performs any combination of following duties to provide customer service in self-service store: Aids customers in locating merchandise. Answers questions from and provides information to customer about merchandise for sale. Obtains merchandise from stockroom when merchandise is not on floor. Arranges stock on shelves or racks in sales area. Directs or escorts customer to fitting or dressing rooms or to cashier. Keeps merchandise in order. Marks or tickets merchandise. Inventories stock.
GOE: 09.04.02 STRENGTH: L GED: R3 M1 L2 SVP: 2 DLU: 81

299.677-014 SALES ATTENDANT, BUILDING MATERIALS (retail trade) alternate titles: yard salesperson
Assists customers and stocks merchandise in building materials and supplies department of self-service store: Answers questions and advises customer in selection of building materials and supplies. Cuts lumber, screening, glass, and related materials to size requested by customer, using power saws, holding fixtures, and various hand-cutting tools. Assists customer to load purchased materials into customer's vehicle. Moves materials and supplies from receiving area to display area, using forklift or hand truck. Marks prices on merchandise or price stickers, according to pricing guides, using marking devices. Straightens materials on display to maintain safe and orderly conditions in sales areas. Covers exposed materials, when required, to prevent weather damage. Counts materials and records totals on inventory sheets.
GOE: 09.04.02 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 86

299.687-010 PORTER, SAMPLE CASE (wholesale tr.)
Carries or rolls sample cases while accompanying sales representative on calls to wholesale or retail stores. Opens sample cases upon arrival at store, and assists sales representative in displaying merchandise to prospective buyers. Replaces merchandise when sales representative has completed visit. May transport samples cases, using automobile.
GOE: 09.05.06 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

299.687-014 SANDWICH-BOARD CARRIER (any industry)
Wears sign boards and walks in public to advertise merchandise, services, or belief. May distribute handbills to passers-by [ADVERTISING-MATERIAL DISTRIBUTOR (any industry)]. May wear costume to attract attention [IMPERSONATOR, CHARACTER (any industry)]. May work for labor organization and be designated Picket, Labor Union (nonprofit org.)
GOE: 08.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

3 SERVICE OCCUPATIONS

This category includes occupations concerned with performing tasks in and around private households; serving individuals in institutions and in commercial and other establishments; and protecting the public against crime, fire, accidents, and acts of war.

30 DOMESTIC SERVICE OCCUPATIONS

This division includes occupations concerned with tasks in and around a private household.

301 HOUSEHOLD AND RELATED WORK

This group includes occupations concerned with performing such duties in a private household as cleaning, making beds, caring for children, planning meals, marketing, and cooking. Includes workers managing private household and directing work activities of other workers performing these duties. Occupations concerned primarily with washing and ironing are included in Group 302, and preparation and cooking food in Group 305.

301.137-010 HOUSEKEEPER, HOME (domestic ser.) alternate titles: manager, household

Supervises and coordinates activities of household employees in a private residence: Informs new employees of employer's desires and gives instructions in work methods and routines. Assigns duties, such as cooking and serving meals, cleaning, washing, and ironing, adjusting work activities to accommodate family members. Orders foodstuffs and cleaning supplies. Keeps record of expenditures. May hire and discharge employees. Works in residence employing large staff.
GOE: 05.12.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

301.474-010 HOUSE WORKER, GENERAL (domestic ser.) alternate titles: housekeeper, home

Performs any combination of following duties to maintain private home clean and orderly, to cook and serve meals, and to render personal services to family members: Plans meals and purchases foodstuffs and household supplies. Prepares and cooks vegetables, meats, and other foods according to employer's instructions or following own methods. Serves meals and refreshments. Washes dishes and cleans silverware. Oversees activities of children, assisting them in dressing and bathing. Cleans furnishings, floors, and windows, using vacuum cleaner, mops, broom, cloths, and cleaning solutions. Changes linens and makes beds. Washes linens and other garments by hand or machine, and mends and irons clothing, linens, and other household articles, using hand iron or electric ironer. Answers telephone and doorbell. Feeds pets.
GOE: 05.12.18 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 86

301.677-010 CHILD MONITOR (domestic ser.) alternate titles: nurse, children's

Performs any combination of following duties to attend children in private home: Observes and monitors play activities or amuses children by reading to or playing games with them. Prepares and serves meals or formulas. Sterilizes bottles and other equipment used for feeding infants. Dresses or assists children to dress and bathe. Accompanies children on walks or other outings. Washes and irons clothing. Keeps children's quarters clean and tidy. Cleans other parts of home. May be designated Nurse, Infants' (domestic ser.) when in charge of infants. May be designated Baby Sitter (domestic ser.) when employed on daily or hourly basis.
GOE: 10.03.03 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 81

301.687-010 CARETAKER (domestic ser.) alternate titles: odd-job worker

Performs any combination of following duties in keeping private home clean and in good condition: Cleans and dusts furnishings, hallways, and lavatories. Beats and vacuums rugs and scrubs them with cleaning solutions. Washes windows and waxes and polishes floors. Removes and hangs draperies. Cleans and oils furnace. Shovels coal into furnace and removes ashes. Replaces light switches and repairs broken screens, latches, or doors. Paints exterior structures, such as fences, garages, and sheds. May drive family car. May mow and rake lawn. May groom and exercise pets. When duties are confined to upkeep of house, may be designated House Worker (domestic ser.).
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

301.687-014 DAY WORKER (domestic ser.)

Performs any combination of following domestic duties: Cleans and dusts furnishings, hallways, and lavatories. Changes and makes beds. Washes and irons clothings by hand or machine. Vacuums carpets, using vacuum cleaner. May watch children to keep them out of mischief. May wash windows and wax and polish floors.
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 81

301.687-018 YARD WORKER (domestic ser.)

Performs any combination of following duties, in accordance with instructions of employer, to keep grounds of private residence in neat and orderly condition: Plants, transplants, fertilizes, sprays with pesticides, prunes, cultivates, and waters flowers, shrubbery, and trees. Seeds and mows lawns, rakes leaves, and keeps ground free of other debris. Whitewashes or paints fences. Washes and polishes automobiles. Cleans patio furniture and garage. Shovels snow from walks. May cultivate flowers, shrubbery, and other plants in greenhouse. May wax floors, tend furnace, or groom and exercise pets. May divide time between several homes, working on hourly or daily basis. When duties are confined to upkeep of grounds, may be designated Gardener (domestic ser.).
GOE: 03.04.04 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

302 LAUNDERERS, PRIVATE FAMILY

This group includes occupations concerned with washing and ironing clothes and household linens for one or several private families.

302.685-010 LAUNDRY WORKER, DOMESTIC (domestic ser.)

Tends automatic washing and drying machines to clean and dry household articles and presses household articles, using hand iron: Sorts articles by color and fabric, and loads into automatic washing machine. Adjusts machine settings for temperature, water level, and time duration of wash. Adds measured amounts of detergent, bluing, starches, and fabric softener as required. Removes articles from washer and loads into dryer. Sorts, irons, and folds dried articles. May iron only [IRONER (domestic ser.)]. May perform other housework [HOUSE WORKER, GENERAL (domestic ser.)]. May use electric ironing machine.
GOE: 05.12.18 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

302.687-010 IRONER (domestic ser.)

Dampens and irons wearing apparel, household linens, and other household articles with hand iron. May use electric ironing machine (mangle). May be employed on hourly basis.
GOE: 05.12.18 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

305 COOKS, DOMESTIC

This group includes occupations concerned with preparing and cooking food, including special diets, for private household.

305.281-010 COOK (domestic ser.)

Plans menus and cooks meals, in private home, according to recipes or tastes of employer: Peels, washes, trims, and prepares vegetables and meats for cooking. Cooks vegetables and bakes breads and pastries. Boils, broils, fries, and roasts meats. Plans menus and orders foodstuffs. Cleans kitchen and cooking utensils. May serve meals. May perform seasonal cooking duties, such as preserving and canning fruits and vegetables, and making jellies. May prepare fancy dishes and pastries. May prepare food for special diets. May work closely with persons performing household or nursing duties. May specialize in preparing and serving dinner for employed, retired, or other persons and be designated Family-Dinner Service Specialist (domestic ser.).
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 81

309 DOMESTIC SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with tasks in and around a private household.

309.137-010 BUTLER (domestic ser.)

Supervises and coordinates activities of household employees engaged in cooking, cleaning, and related domestic duties: Oversees serving of luncheon and dinner, sets table, directs workers in serving meals, or personally serves them. Performs other services as requested, such as mixing and serving cocktails and tea. Answers telephone and delivers messages. Receives and announces guests. May prepare salads. May keep silver service clean and intact. May employ and discharge other household employees.
GOE: 09.01.03 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

309.354-010 HOMEMAKER (social ser.)

Advises family in private home in dealing with problems, such as nutrition, cleanliness, and household utilities: Advises and assists family members in planning nutritious meals, purchasing and preparing foods, and utilizing commodities from surplus food programs. Assists head of household in training and disciplining children, assigns and schedules housekeeping duties to children according to their capabilities, and encourages parents to take interest in children's schoolwork and assist them in establishing good study habits. Explains fundamental hygiene principles and renders bedside care to individuals who are ill, and trains other family members to provide required care. Participates in evaluating needs of individuals served, and confers with CASEWORKER (social ser.) to plan for continuing additional services.

GOE: 11.02.03 STRENGTH: L GED: R4 M2 L4 SVP: 5 DLU: 77

309.367-010 HOUSE SITTER (domestic ser.)

Occupies and oversees house to maintain order and security of property and conduct necessary business transactions during temporary absence of owner, renter, or other occupant: Monitors entrances to property and secures locks and other devices to prevent access of unauthorized persons. Answers telephone and doorbell, takes messages, and forwards information to employer as requested. Forwards or files mail. Pays current bills from designated funds and makes deposits to accounts as required. Cleans, vacuums, and dusts house, using vacuum cleaner and other housecleaning aids. Feeds and waters pets and takes ill pets to veterinarian for treatment. Inspects utilities, such as plumbing and air-conditioning, to detect problems requiring services of repairer and contacts repair establishment to arrange for necessary repairs. May care for swimming pool or grounds or perform other related duties.

GOE: 09.05.06 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 86

309.674-010 BUTLER, SECOND (domestic ser.)

Performs variety of manual duties in large household, working under supervision of BUTLER (domestic ser.): Serves food and drink during meals, cleans and polishes silver, waxes floors, washes windows and performs other duties in dining room, living room, and other downstairs rooms. May answer telephone or doorbell and announce guests. Performs duties of BUTLER (domestic ser.) in his or her absence. Frequently lays out employer's clothes for wear, polishes shoes, and performs other valet duties.

GOE: 05.12.18 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

309.674-014 PERSONAL ATTENDANT (domestic ser.)

Performs personal services to employer in private household: Brushes, cleans, presses, mends employer's clothing. Lays out employer's clothing, and assists employer to dress. Packs clothing for travel. Cleans employer's quarters. Prepares bath. Purchases clothing and accessories. Answers telephone. Drives car to perform errands. Mixes and serves drinks. May prepare and serve refreshments. May shampoo and groom employer's hair, shave face, manicure nails, give body or facial massages, or apply cosmetics for employer. May change linens, and make employer's bed.

GOE: 09.05.06 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

309.677-010 COMPANION (domestic ser.)

Cares for elderly, handicapped, or convalescent persons: Attends to employer's personal needs [PERSONAL ATTENDANT (domestic ser.)]. Transacts social or business affairs [SOCIAL SECRETARY (clerical)]. Reads aloud, plays cards, or other games to entertain employer. Accompanies employer on trips and outings. May prepare and serve meals to employer.

GOE: 10.03.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

309.677-014 FOSTER PARENT (domestic ser.)

Rears homeless or parentless children in own home as members of family: Organizes and schedules activities, such as recreation, rest periods, and sleeping time. Ensures child has nutritious diet. Instructs children in good personal and health habits. Bathes, dresses, and undresses young children. Washes and irons clothing. Accompanies children on outings and walks. Disciplines children when required. May return children to parents' home during weekends and holidays. May work under supervision of welfare agency. May prepare periodic reports concerning progress and behavior of children for welfare agency.

GOE: 10.03.03 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

31 FOOD AND BEVERAGE PREPARATION AND SERVICE OCCUPATIONS

This division includes occupations concerned with preparing food and beverages and serving them to patrons of such establishments as hotels, clubs, restaurants, and cocktail lounges.

310 HOSTS/HOSTESSES AND STEWARDS/STEWARDESSES, FOOD AND BEVERAGE SERVICE, EXCEPT SHIP STEWARDS/STEWARDESSES

This group includes occupations concerned with greeting and seating customers of establishment; and supervising activities of waiters/waitresses, dining room attendants, storeroom workers, and kitchen and pantry workers, except those actually engaged in food preparation.

310.137-010 HOST/HOSTESS, RESTAURANT (hotel & rest.) alternate titles: dining-room manager; waiter/waitress, head

Supervises and coordinates activities of dining room personnel to provide fast and courteous service to patrons: Schedules dining reservations and arranges parties or special services for diners. Greets guests, escorts them to tables, and provides menus. Adjusts complaints of patrons. Assigns work tasks and coordinates activities of dining room personnel to ensure prompt and courteous service to patrons. Inspects dining room serving stations for neatness and cleanliness, and requisitions table linens and other dining room supplies for tables and serving stations. May interview, hire, and discharge dining room personnel. May train dining room employees. May schedule work hours and keep time records of dining room workers. May assist in planning menus. May prepare beverages and expedite food orders. May total receipts, at end of shift, to verify sales and clear cash register. May collect payment from customers [CASHIER (clerical) II 211.462-010].

GOE: 09.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 80

310.137-018 STEWARD/STEWARDESS (hotel & rest.) alternate titles: chief steward/stewardess; executive steward/stewardess; house steward/stewardess

Supervises and coordinates activities of pantry, storeroom, and noncooking kitchen workers, and purchases or requisitions foodstuffs, kitchen supplies, and equipment: Inspects kitchens and storerooms to ensure that premises and equipment are clean and in order, and that sufficient foodstuffs and supplies are on hand to ensure efficient service. Examines incoming purchases for quality and to ensure that purchases are as specified in order. Approves invoices or bills for payment. Coordinates work of noncooking kitchen and storeroom workers engaged in activities, such as dishwashing, silver cleaning, and storage and distribution of foodstuffs and supplies. Establishes controls to guard against theft and wastage. Confers with EXECUTIVE CHEF (hotel & rest.) or MANAGER, CATERING (hotel & rest.) concerning banquet arrangements for food service, equipment, and extra employees. May plan and price menus, keep cost records, and establish budget controls to ensure profitable food service operation. May perform duties for recreational or business clubs. This job occurs in hotels as opposed to KITCHEN SUPERVISOR (hotel & rest.) which occurs in restaurants and cafeterias.

GOE: 05.12.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

310.137-022 STEWARD/STEWARDESS, BANQUET (hotel & rest.)

Supervises and coordinates activities of kitchen and dining-room workers during banquets to ensure that food is served promptly: Consults with MANAGER, CATERING (hotel & rest.) or EXECUTIVE CHEF (hotel & rest.) on such items as serving arrangements and additional employees and equipment needed. Hires and supervises temporary banquet employees. Requisitions table linen, china, glassware, and silverware. Orders preparation of salads and coffee. Observes food being served to ensure that food is correctly garnished and arranged on plates.

GOE: 09.05.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

310.137-026 STEWARD/STEWARDESS, RAILROAD DINING CAR (r.r. trans.)

Supervises and coordinates activities of workers engaged in preparing, cooking, and serving food to passengers on railroad dining car: Requisitions food supplies necessary to fill menu and prepares requisitions for linen, crockery, and silverware from commissary. Examines supplies for quality and completeness of orders. Supervises workers engaged in storing food in car. Receives bills and money from WAITER/WAITRESS, DINING CAR (r.r. trans.) and makes change. Maintains record of all cash received during each day. Informs COOK, RAILROAD (r.r. trans.) of approximate number of persons expected to board train. Assigns work stations to WAITERS/WAITRESSES DINING CAR (r.r. trans.). May coordinate sale and serving of beverages in lounge car and be designated Steward/Stewardess, Club Car (r.r. trans.).

GOE: 11.11.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

310.267-010 ANALYST, FOOD AND BEVERAGE (hotel & rest.) alternate titles: research worker, kitchen

Examines food samples and food service records and other data to determine sales appeal and cost of preparing and serving meals and beverages in establishments, such as restaurants and cafeterias or for chain of food establishments: Tastes food samples to determine palatability and customer appeal. Estimates number of servings obtainable from standard and original recipes and unit cost of preparation. Converts recipes for use in quantity preparation. Studies reservation lists and previous records and forecasts customer traffic and number of servings required for specified period of time. May investigate complaints relative to faulty cooking or quality of ingredients. May plan menus. May specialize in industrial-employee food service or cafeteria food service. May supervise FOOD-AND-BEVERAGE CONTROLLER (hotel & rest.) and kitchen employees.

GOE: 05.05.17 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 77

310.357-010 WINE STEWARD/STEWARDESS (hotel & rest.) alternate titles: sommelier

Selects, requisitions, stores, sells, and serves wines in restaurant: Keeps inventory and orders wine to replenish stock. Stores wines on racks or shelves. Discusses wines with patrons and assists patrons to make wine selection, applying knowledge of wines. Tastes wines prior to serving and serves wines to patrons.

GOE: 09.05.02 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

311 WAITERS/WAITRESSES, AND RELATED FOOD SERVICE OCCUPATIONS

This group includes occupations concerned with setting places at dining tables or counters, taking orders for and serving food and drink, answering inquiries relative to items on the menu, and otherwise attending to the wishes of customers.

311.137-010 COUNTER SUPERVISOR (hotel & rest.)

Supervises and coordinates activities of workers engaged in serving food from cafeteria counter: Directs workers engaged in stocking and arranging of

food, dishes, silverware, and other supplies at steamtables, ice counters, and serving stations. Inspects serving operations to ensure that supplies are adequate and that food portioning meets prescribed standards. Assigns duties to counter workers. Directs workers engaged in removing food after meals and cleaning counters and work areas. May assist workers in serving customers or in performing other duties.
GOE: 09.05.02 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

311.137-014 WAITER/WAITRESS, BANQUET, HEAD (hotel & rest.)
Plans details for banquets, receptions, and other social functions. Hires extra help, directs setting up of tables and decorations, and supervises WAITER/WAITRESS, FORMAL (hotel & rest.).
GOE: 09.01.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

311.137-018 WAITER/WAITRESS, CAPTAIN (hotel & rest.) alternate titles: captain
Supervises activities of workers in section of dining room: Receives guests and conducts them to tables. Describes or suggests food courses and appropriate wines. When serving banquets, may be designated Banquet Captain (hotel & rest.).
GOE: 09.01.03 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

311.137-022 WAITER/WAITRESS, HEAD (hotel & rest.)
Supervises and coordinates activities of dining-room employees engaged in providing courteous and rapid service to diners: Greets guests and escorts them to tables. Schedules dining reservations. Arranges parties for patrons. Adjusts complaints regarding food or service. Hires and trains dining-room employees. Notifies payroll department regarding work schedules and time records. May assist in preparing menus. May plan and execute details for banquets [STEWARD/STEWARDESS, BANQUET (hotel & rest.); MANAGER, CATERING (hotel & rest.)]. May supervise WAITERS/WAITRESSES, ROOM SERVICE (hotel & rest.) and be designated Captain, Room Service (hotel & rest.).
GOE: 09.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

311.472-010 FAST-FOODS WORKER (hotel & rest.) alternate titles: cashier, fast foods restaurant
Serves customer of fast food restaurant: Requests customer order and depresses keys of multicounting machine to simultaneously record order and compute bill. Selects requested food items from serving or storage areas and assembles items on serving tray or in takeout bag. Notifies kitchen personnel of shortages or special orders. Serves cold drinks, using drink-dispensing machine, or frozen milk drinks or desserts, using milkshake or frozen custard machine. Makes and serves hot beverages, using automatic water heater or coffeemaker. Presses lids onto beverages and places beverages on serving tray or in takeout container. Receives payment. May cook or apportion french fries or perform other minor duties to prepare food, serve customers, or maintain orderly eating or serving areas.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

311.477-010 CAR HOP (hotel & rest.) alternate titles: drive-in waiter/waitress
Serves food and refreshments to patrons in cars: Takes order and relays order to kitchen or serving counter to be filled. Places filled order on tray and fastens tray to car door. Totals and presents check to customer and accepts payment for service. Removes tray and stacks dishes for return to kitchen. Sweeps service area with broom. May prepare fountain drinks, such as sodas, milkshakes, and malted milks. May restock service counter with items, such as ice, napkins, and straws.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 80

311.477-014 COUNTER ATTENDANT, LUNCHROOM OR COFFEE SHOP (hotel & rest.) alternate titles: waiter/waitress, counter
Serves food or beverages to customers seated at counter: Calls order to kitchen and picks up and serves order when it is ready. Itemizes and totals check for service or totals takeout transaction on cash register and accepts payment. May prepare sandwiches, salads, and other short order items [COOK, SHORT ORDER (hotel & rest.) 313.374-014]. May perform other duties, such as cleaning counters, washing dishes, and selling cigars and cigarettes.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 81

311.477-018 WAITER/WAITRESS, BAR (hotel & rest.) alternate titles: waiter/waitress, cocktail lounge
Serves beverages to patrons seated at tables in bar or cocktail lounge. Computes bill and accepts payment. May take orders for and serve light meals and hors d'oeuvres. May request identification from customers when legal age is questioned. When working in establishment serving only beer and wine, is designated Waiter/Waitress, Tavern (hotel & rest.).
GOE: 09.04.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 79

311.477-022 WAITER/WAITRESS, DINING CAR (r.r. trans.)
Serves passengers in railroad dining car: Presents menu to patrons, makes suggestions, and answers questions regarding food and service. Takes order from patron and presents it to COOK, RAILROAD (r.r. trans.). Serves food to passenger. Computes cost of meal. Accepts money from patron and returns change. Removes dishes from table and carries them to kitchen. Places clean linen, silverware, and glassware on table according to rules of etiquette. Washes glassware and silverware. May prepare salads, appetizers, and cold dishes. May receive and store linen supplies. May prepare and serve mixed drinks. May be designated according to specialty as Bar Attendant (r.r. trans.); Pantry Attendant (r.r. trans.).
GOE: 09.04.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

311.477-026 WAITER/WAITRESS, FORMAL (hotel & rest.) alternate titles: server
Serves meals to patrons according to established rules of etiquette, working in formal setting: Presents menu to diner, suggesting dinner courses, appropriate wines, and answering questions regarding food preparation. Writes order on check or memorizes it. Relays order to kitchen and serves courses from kitchen and service bars. Garnishes and decorates dishes preparatory to serving. Serves patrons from chafing dish at table. Observes diners to respond to any additional requests and to determine when meal has been completed. Totals bill and accepts payment or refers patron to CASHIER (clerical) II 211.462-010. May carve meats, bone fish and fowl, and prepare flaming dishes and desserts at patron's table. May be designated Waiter/Waitress, Banquet (hotel & rest.) when serving at banquets.
GOE: 09.04.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 80

311.477-030 WAITER/WAITRESS, INFORMAL (hotel & rest.) alternate titles: server
Serves food to patrons at counters and tables of coffeeshops, lunchrooms, and other dining establishments where food service is informal: Presents menu, answers questions, and makes suggestions regarding food and service. Writes order on check or memorizes it. Relays order to kitchen and serves courses from kitchen and service bars. Observes guests to respond to additional requests and to determine when meal has been completed. Totals bill and accepts payment or refers patron to CASHIER (clerical) II 211.462-010. May ladle soup, toss salads, portion pies and desserts, brew coffee, and perform other services as determined by establishment's size and practices. May clear and reset counters or tables at conclusion of each course [DINING ROOM ATTENDANT (hotel & rest.) 311.677-018].
GOE: 09.04.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 80

311.477-034 WAITER/WAITRESS, ROOM SERVICE (hotel & rest.)
Serves meals to guests in their rooms. Carries silverware, linen, and food on tray or uses cart. Sets up table and serves food from cart. Removes equipment from rooms.
GOE: 09.05.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

311.477-038 WAITER/WAITRESS, TAKE OUT (hotel & rest.)
Serves customers at take out counter of restaurant or lunchroom: Writes items ordered on order tickets, totals orders, passes orders to cook, and gives ticket stubs to customers to identify filled orders. Wraps menu items, such as sandwiches, hot entrees, and desserts. Fills containers with requested beverages, such as coffee, tea, or carbonated drink. Receives payment for orders and makes change. May prepare fountain drinks, such as sodas and milkshakes. May record orders and compute bill simultaneously, using cash register.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 80

311.674-010 CANTEEN OPERATOR (any industry)
Serves sandwiches, salads, beverages, desserts, candies, and tobacco to employees in industrial establishment. May collect money for purchases. May order items to replace stocks. May serve hot dishes, such as soups. May serve employees from mobile canteen.
GOE: 09.04.01 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

311.674-014 RAW SHELLFISH PREPARER (hotel & rest.)
Cleans and prepares shellfish for serving to customers: Washes shellfish in water. Inserts blunt-edge knife between halves to open bivalves and cuts out inedible parts. Returns oysters and clams to half shell and arranges them on ice filled dishes or places them in cold storage. Removes shells from shrimp and meat from crab and lobster shells, and arranges meat in special glasses for serving as cocktails. Mixes meat with other ingredients and arranges mixture on plates for salads. Serves customers at bar. May place silverware, napkins, potato chips, and condiments on bar. May mix ketchup, horseradish, lemon juice, and other ingredients to make cocktail sauces. May prepare only oysters for use as food and be designated Oyster Preparer (hotel & rest.).
GOE: 09.05.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

311.674-018 WAITER/WAITRESS, BUFFET (hotel & rest.)
Serves or assists diners to serve themselves at buffet or smorgasbord table. Replenishes supplies of food and tableware. May carry trays of food to individual tables for diners.
GOE: 09.05.02 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

311.677-010 CAFETERIA ATTENDANT (hotel & rest.) alternate titles: dining-room attendant, cafeteria; service attendant, cafeteria; table attendant, cafeteria; waiter/waitress, cafeteria
Carries trays from food counters to tables for cafeteria patrons. Carries dirty dishes to kitchen. Wipes tables and seats with dampened cloth. Sets tables with clean linens, sugar bowls, and condiments. May wrap clean silver in napkins. May circulate among diners and serve coffee and be designated Coffee Server, Cafeteria Or Restaurant (hotel & rest.).
GOE: 09.05.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 81

311.677-014 COUNTER ATTENDANT, CAFETERIA (hotel & rest.) alternate titles: server; steamtable attendant
Serves food from counters and steamtables to cafeteria patrons: Serves salads, vegetables, meat, breads, and cocktails, ladles soups and sauces, portions desserts, and fills beverage cups and glasses as indicated by customer. Adds

relishes and garnishes according to instructions from COUNTER SUPERVISOR (hotel & rest.) 311.137-010. Scrubs and polishes counters, steamtables, and other equipment. May replenish foods at serving stations. May brew coffee and tea. May carve meat. May accept payment for food, using cash register or adding machine to total check. May prepare and serve salads and be known as Salad Counter Attendant (hotel & rest.). May serve food to passenger from steamtable on railroad dining car and be known as Steamtable Attendant, Railroad (r.r. trans.).
GOE: 09.05.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 86

311.677-018 DINING ROOM ATTENDANT (hotel & rest.) alternate titles: bus person
Performs any combination of following duties to facilitate food service: Carries dirty dishes from dining room to kitchen. Wipes table tops and chairs, using damp cloth. Replaces soiled table linens and sets tables with silverware and glassware. Replenishes supply of clean linens, silverware, glassware, and dishes in dining room. Supplies service bar with food, such as soups, salads, and desserts. Serves ice water and butter to patrons. Cleans and polishes glass shelves and doors of service bars and equipment, such as coffee urns and cream and milk dispensers. Makes coffee and fills fruit juice dispensers. May sweep and mop floors. May transfer food and dishes between floors of establishment, using dumbwaiter, and be designated Dumbwaiter Operator (hotel & rest.). May run errands and deliver food orders to offices and be designated Runner (hotel & rest.). May be designated according to type of activity or area of work as Clean-Up Helper, Banquet (hotel & rest.); Counter Dish Carrier (hotel & rest.); Dish Carrier (hotel & rest.); Glass Washer And Carrier (hotel & rest.); Room Service Assistant (hotel & rest.); Steamtable Worker (hotel & rest.); Table Setter (hotel & rest.); Water Server (hotel & rest.).
GOE: 09.05.02 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 80

312 BARTENDERS

This group includes occupations concerned with mixing and dispensing alcoholic drinks.

312.474-010 BARTENDER (hotel & rest.) alternate titles: bar attendant; barkeeper
Mixes and serves alcoholic and nonalcoholic drinks to patrons of bar, following standard recipes: Mixes ingredients, such as liquor, soda, water, sugar, and bitters, to prepare cocktails and other drinks. Serves wine and draught or bottled beer. Collects money for drinks served. Orders or requisitions liquors and supplies. Arranges bottles and glasses to make attractive display. May slice and pit fruit for garnishing drinks. May prepare appetizers, such as pickles, cheese, and cold meats. May tend service bar and be designated Service Bartender (hotel & rest.).
GOE: 09.04.01 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 80

312.477-010 BAR ATTENDANT (hotel & rest.)
Serves alcoholic drinks to patrons in taverns or combination bar and package-goods store: Takes orders from customers. Serves shots (jiggers) for consumption within establishment. Serves bottled beer or draws draught beer from kegs. Sells unopened bottles of alcoholic and nonalcoholic beverages to be taken from premises when licensed for sale of packaged goods. Receives payment for amount of sale and makes change. Usually does not serve mixed drinks.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

312.677-010 TAPROOM ATTENDANT (amuse. & rec.)
Fills glasses with beer drawn from tap and hands filled glasses to patron or to worker who serves patrons. Inserts hose couplings into fittings on barrel to connect beer tap and CO2 automatic pressure regulator to beer barrel. Twists valve control lever to pressurize beer barrel. Pulls tap control handle to pour beer. Wipes bar and equipment with cloth to clean. May wash and sterilize glasses. May order and inventory supplies. May wax bar.
GOE: 09.05.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

312.687-010 BARTENDER HELPER (hotel & rest.) alternate titles: bar porter; bar runner
Cleans bar and equipment, and replenishes bar supplies, such as liquor, fruit, ice, and dishes: Stocks refrigerating units with wines and bottled beer. Replaces empty beer kegs with full ones. Slices and pits fruit used to garnish drinks. Washes glasses, bar, and equipment, and polishes bar fixtures. Mops floors. Removes empty bottles and trash. May mix and prepare flavors for mixed drinks.
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

313 CHEFS AND COOKS, HOTELS AND RESTAURANTS

This group includes occupations concerned with planning menus, estimating consumption, and cooking food in hotels or restaurants. Workers usually specialize in a particular area.

313.131-010 BAKER, HEAD (hotel & rest.) alternate titles: baker, bread, chief; baker chef
Supervises and coordinates activities of personnel in bread-baking department: Plans production according to daily requirements. Requisitions supplies and equipment. Maintains production records.
GOE: 05.10.08 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

313.131-014 CHEF (hotel & rest.) alternate titles: cook, chief; kitchen chef
Supervises, coordinates, and participates in activities of cooks and othe kitchen personnel engaged in preparing and cooking foods in hotel, restaurant cafeteria, or other establishment: Estimates food consumption, and requisition or purchases foodstuffs. Receives and examines foodstuffs and supplies to ensure quality and quantity meet established standards and specifications. Select and develops recipes based on type of food to be prepared and applying personal knowledge and experience in food preparation. Supervises personnel engaged in preparing, cooking, and serving meats, sauces, vegetables, soups, an other foods. Cooks or otherwise prepares food according to recipe [COOK (hotel & rest.) 313.361-014]. Cuts, trims, and bones meats and poultry fo cooking. Portions cooked foods, or gives instructions to workers as to size o portions and methods of garnishing. Carves meats. May employ, train, and discharge workers. May maintain time and payroll records. May plan menus. May supervise kitchen staff, plan menus, purchase foodstuffs, and not prepare an cook foods [EXECUTIVE CHEF (hotel & rest.) 187.167-010]. May be designated according to cuisine specialty as Chef, French (hotel & rest.); Chef German (hotel & rest.); Chef, Italian (hotel & rest.); or according to food specialty as Chef, Broiler Or Fry (hotel & rest.); Chef, Saucier (hotel & rest.). May supervise worker preparing food for banquet and be designated Banquet Che (hotel & rest.).
GOE: 05.05.17 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 81

313.131-018 COOK, HEAD, SCHOOL CAFETERIA (hotel & rest.) alternate titles: food service coordinator; head cook, school; preparation center coordinator
Supervises and coordinates activities of workers engaged in preparing, cooking, and serving food in school cafeteria, cafeterias, or central school distric kitchen: Plans varied menus to ensure that food is appetizing and nutritionall suitable for children. Estimates daily or weekly needs and orders food supplie and equipment. Supervises and coordinates activities of workers who prepare cook, serve food, clean premises, and wash dishware. Keeps daily record o meals served and takes inventory of supplies and equipment. Trains new employees. Participates in preparing and cooking meals. May direct activities o students engaged in washing dishes and utensils.
GOE: 05.10.08 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 80

313.131-022 PASTRY CHEF (hotel & rest.)
Supervises and coordinates activities of COOKS (hotel & rest.) engaged i preparation of desserts, pastries, confections, and ice cream: Plans productio for pastry department, according to menu or special requirements. Supplies recipes for, and suggests methods and procedures to pastry workers. Fashions tabl and pastry decorations, such as statuaries and ornaments, from sugar paste an icings, using cream bag, spatula, and various decorating tools. Requisitions supplies and equipment. Maintains production records. May participate in preparin desserts.
GOE: 05.10.08 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

313.131-026 SOUS CHEF (hotel & rest.) alternate titles: chef assistant chef, under; executive-chef assistant; supervising-chef assistant
Supervises and coordinates activities of COOKS (hotel & rest.) and othe workers engaged in preparing and cooking foodstuffs: Observes workers engaged in preparing, portioning, and garnishing foods to ensure that methods o cooking and garnishing and sizes of portions are as prescribed. Gives instructions to cooking personnel in fine points of cooking. Cooks and carves meats and prepares dishes, such as sauces, during rush periods and for banquets an other social functions. Assumes responsibility for kitchen in absence of EXECUTIVE CHEF (hotel & rest.). In establishments not employing EXECUTIV CHEF (hotel & rest.), may be designated Supervising Chef (hotel & rest.).
GOE: 05.05.17 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 77

313.281-010 CHEF DE FROID (hotel & rest.)
Designs and prepares decorated foods and artistic food arrangements for buffets in formal restaurants: Confers with EXECUTIVE CHEF (hotel & rest.) an SOUS CHEF (hotel & rest.) and reviews advance menus to determine amoun and type of food to be served and decor to be carried out. Prepares foods, suc as hors d'oeuvres, cold whole salmon, roast suckling pig, casseroles, and fanc aspics, according to recipe, and decorates them following customer's specifications, designated color scheme, or theme, using colorful fruit, vegetables, an relishes. Molds butter into artistic forms, such as dancing girls or animals Sculptures blocks of ice, using chisels and ice picks. Carves meats in patron' presence, employing showmanship. May prepare cold meats, casseroles, an other foods during slack periods [GARDE MANGER (hotel & rest.)].
GOE: 05.05.17 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

313.361-010 BAKER, SECOND (hotel & rest.)
Prepares bread, rolls, muffins, and biscuits in establishments where bakin of various breads, cakes, and pastries is divided among several workers, an supervises other BAKERS (hotel & rest.) in absence of BAKER, HEAD (hote & rest.).
GOE: 05.10.08 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 77

313.361-014 COOK (hotel & rest.) alternate titles: cook, restaurant
Prepares, seasons, and cooks soups, meats, vegetables, desserts, and othe foodstuffs for consumption in eating establishments: Reads menu to estimat

food requirements and orders food from supplier or procures food from storage. Adjusts thermostat controls to regulate temperature of ovens, broilers, grills, roasters, and steam kettles. Measures and mixes ingredients according to recipe, using variety of kitchen utensils and equipment, such as blenders, mixers, grinders, slicers, and tenderizers, to prepare soups, salads, gravies, desserts, sauces, and casseroles. Bakes, roasts, broils, and steams meats, fish, vegetables, and other foods. Adds seasoning to foods during mixing or cooking, according to personal judgment and experience. Observes and tests foods being cooked by tasting, smelling, and piercing with fork to determine that it is cooked. Carves meats, portions food on serving plates, adds gravies and sauces, and garnishes servings to fill orders. May supervise other cooks and kitchen employees. May wash, peel, cut, and shred vegetables and fruits to prepare them for use. May butcher chickens, fish, and shellfish. May cut, trim, and bone meat prior to cooking. May bake bread, rolls, cakes, and pastry [BAKER (hotel & rest.) 313.381-010]. May price items on menu. May be designated according to meal cooked or shift worked as Cook, Dinner (hotel & rest.); Cook, Morning (hotel & rest.); or according to food item prepared as Cook, Roast (hotel & rest.); or according to method of cooking as Cook, Broiler (hotel & rest.). May substitute for and relieve or assist other cooks during emergencies or rush periods and be designated Cook, Relief (hotel & rest.). May prepare and cook meals for institutionalized patients requiring special diets and be designated Food-Service Worker (hotel & rest.). May be designated: Cook, Dessert (hotel & rest.); Cook, Fry (hotel & rest.); Cook, Night (hotel & rest.); Cook, Sauce (hotel & rest.); Cook, Soup (hotel & rest.); Cook, Special Diet (hotel & rest.); Cook, Vegetable (hotel & rest.). May oversee work of patients assigned to kitchen for work therapy purposes when working in psychiatric hospital.
GOE: 05.05.17 STRENGTH: M GED: R3 M3 L3 SVP: 7 DLU: 81

313.361-018 COOK APPRENTICE (hotel & rest.)
Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.05.17 STRENGTH: M GED: R3 M3 L3 SVP: 7 DLU: 77

313.361-026 COOK, SPECIALTY (hotel & rest.)
Prepares specialty foods, such as fish and chips, tacos, and pasties (Cornish meat pies) according to recipe and specific methods applicable to type of cookery. May serve orders to customers at window or counter. May prepare and serve beverages, such as coffee, clam nectar, and fountain drinks. May be required to exercise showmanship in preparation of food, such as flipping pancakes in air to turn or tossing pizza dough in air to lighten texture. May be designated according to food item prepared as Cook, Fish And Chips (hotel & rest.).
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

313.361-030 COOK, SPECIALTY, FOREIGN FOOD (hotel & rest.)
Plans menus and cooks foreign-style dishes, dinners, desserts, and other foods, according to recipes: Prepares meats, soups, sauces, vegetables, and other foods prior to cooking. Seasons and cooks food according to prescribed method. Portions and garnishes food. Serves food to waiters on order. Estimates food consumption and requisitions or purchases supplies. Usually employed in restaurant specializing in foreign cuisine, such as French, Scandinavian, German, Swiss, Italian, Spanish, Hungarian, and Cantonese. May be designated according to type of food specialty prepared as Cook, Chinese-Style Food (hotel & rest.); Cook, Italian-Style Food (hotel & rest.); Cook, Kosher-Style Food (hotel & rest.); Cook, Spanish-Style Food (hotel & rest.).
GOE: 05.10.08 STRENGTH: M GED: R3 M3 L2 SVP: 7 DLU: 77

313.361-034 GARDE MANGER (hotel & rest.) alternate titles: cold-meat chef; cook, cold meat
Prepares such dishes as meat loaves and salads, utilizing leftover meats, seafoods, and poultry: Consults with supervisory staff to determine dishes that will use greatest amount of leftovers. Prepares appetizers, relishes, and hors d'oeuvres. Chops, dices, and grinds meats and vegetables. Slices cold meats and cheese. Arranges and garnishes cold meat dishes. Prepares cold meat sandwiches. Mixes and prepares cold sauces, meat glazes, jellies, salad dressings, and stuffings. May supervise pantry workers. May follow recipes to prepare foods.
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L2 SVP: 7 DLU: 77

313.361-038 PIE MAKER (hotel & rest.) alternate titles: baker, pie; cook, pastry; cook, pie; pie chef
Mixes ingredients and bakes pies, tarts, and cobblers, according to recipes: Weighs and measures ingredients, using measuring cup and spoons. Mixes ingredients by hand or with electric mixer to form piecrust dough. Rolls and shapes dough, using rolling pin. Places portions of rolled dough in piepans and trims overlapping edges with knife. Cuts, peels, and prepares fruit for pie fillings. Mixes and cooks ingredients for fillings, such as creams and custards. Pours fillings into pie shells. Covers filling with top crust or spreads topping, such as cream or meringue, over filling. Places pie in oven to bake. Adjusts drafts or thermostatic controls to regulate oven temperatures. Usually found in restaurant or cafeteria where no COOK, PASTRY (hotel & rest.) is employed and need not be able to bake other desserts or pastries as opposed to COOK, PASTRY (hotel & rest.).
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

313.374-010 COOK, FAST FOOD (hotel & rest.)
Prepares and cooks to order foods requiring short preparation time: Reads food order slip or receives verbal instructions as to food required by patron, and prepares and cooks food according to instructions. Prepares sandwiches [SANDWICH MAKER (hotel & rest.) 317.664-010]. Prepares salads and slices meats and cheese, using slicing machine, [PANTRY GOODS MAKER (hotel & rest.) 317.684-014]. Cleans work area and food preparation equipment. May prepare beverages [COFFEE MAKER (hotel & rest.) 317.684-010]. May serve meals to patrons over counter.
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 81

313.374-014 COOK, SHORT ORDER (hotel & rest.)
Prepares food and serves restaurant patrons at counters or tables: Takes order from customer and cooks foods requiring short preparation time, according to customer requirements. Completes order from steamtable and serves customer at table or counter. Accepts payment and makes change, or writes charge slip. Carves meats, makes sandwiches, and brews coffee. May clean food preparation equipment and work area. May clean counter or tables.
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 81

313.381-010 BAKER (hotel & rest.) alternate titles: baker, bread; bread maker; oven tender
Prepares bread, rolls, muffins, and biscuits according to recipe: Checks production schedule to determine variety and quantity of goods to bake. Measures ingredients, using measuring cups and spoons. Mixes ingredients to form dough or batter by hand or using electric mixer. Cuts dough into uniform portions with knife or divider. Molds dough into loaves or desired shapes. Places shaped dough in greased or floured pans. Spreads or sprinkles topping, such as jelly, cinnamon, and poppy seeds on specialties. Places pans of dough in proof box to rise. Inserts pans of raised dough in oven to bake, using peel. Adjusts drafts or thermostatic controls to regulate oven temperature. Removes baked goods from oven and places goods on cooling rack. May bake pies, cakes, cookies, and other pastries [COOK, PASTRY (hotel & rest.)]. May be designated according to specialty baked as Baker, Biscuit (hotel & rest.); Hot-Bread Baker (hotel & rest.); Rolls Baker (hotel & rest.); or according to shift worked as Night Baker (hotel & rest.).
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

313.381-014 BAKER, PIZZA (hotel & rest.)
Prepares and bakes pizza pies: Measures ingredients, such as flour, water, and yeast, using measuring cup, spoon, and scale. Dumps specified ingredients into pan or bowl of mixing machine preparatory to mixing. Starts machine and observes operation until ingredients are mixed to desired consistency. Stops machine and dumps dough into proof box to allow dough to rise. Kneads fermented dough. Cuts out and weighs amount of dough required to produce pizza pies of desired thickness. Shapes dough sections into balls or mounds and sprinkles each section with flour to prevent crust forming until used. Greases pan. Stretches or spreads dough mixture to size of pan. Places dough in pan and adds olive oil and tomato puree, tomato sauce, mozarella cheese, meat, or other garnish on surface of dough, according to kind of pizza ordered. Sets thermostatic controls and inserts pizza into heated oven to bake for specified time. Removes product from oven and observes color to determine when pizza is done.
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L1 SVP: 5 DLU: 77

313.381-018 COOK APPRENTICE, PASTRY (hotel & rest.) alternate titles: baker apprentice, pastry
Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.10.08 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

313.381-022 COOK, BARBECUE (hotel & rest.)
Prepares, seasons, and barbecues pork, beef, chicken, and other types of meat: Builds fire in pit below spit, using hickory wood or other fuel to obtain bed of live coals, or regulates gas or electric heat. Secures meat on spit which is slowly turned by hand or electric motor to cook meat uniformly. Seasons meat and bastes it frequently during roasting. May kill and dress animals or fowls or purchase meat from vendors. When cooking whole pigs, may be designated Cook, Roast Pig (hotel & rest.).
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

313.381-026 COOK, PASTRY (hotel & rest.) alternate titles: baker, cake; baker, pastry; cake maker
Prepares and bakes cakes, cookies, pies, puddings, or desserts, according to recipe: Measures ingredients, using measuring cups and spoons. Mixes ingredients to form dough or batter, using electric mixer or beats and stirs ingredients by hand. Shapes dough for cookies, pies, and fancy pastries, using pie dough roller and cookie cutters or by hand. Places shaped dough portions in greased or floured pans and inserts them in oven, using long-handled paddle (peel). Adjusts drafts or thermostatic controls to regulate oven temperatures. Prepares and cooks ingredients for pie fillings, puddings, custards, or other desserts. Pours filling into pie shells and tops filling with meringue or cream. Mixes ingredients to make icings. Decorates cakes and pastries [CAKE DECORATOR (bakery products) 524.381-010]. Blends colors for icings and for shaped sugar ornaments and statuaries. May specialize in preparing one or more types of pastry or dessert when employed in large establishment. May oversee work of patients assigned to kitchen for work therapy purposes when working in psychiatric hospital.
GOE: 05.10.08 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

313.381-030 COOK, SCHOOL CAFETERIA (hotel & rest.)
Prepares soups, meats, vegetables, salads, dressings, and desserts for consumption in school cafeteria, utilizing cafeteria equipment and cooking experi-

ence. Specializes in providing lightly seasoned, nutritionally adequate, and varied diet. Inspects equipment for cleanliness and functional operation. Work is usually performed with other workers. May plan menus, order food supplies, and receive supplies delivered.
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 81

313.381-034 ICE-CREAM CHEF (hotel & rest.) alternate titles: cook, frozen dessert; cook, ice cream
Mixes, cooks, and freezes ingredients to make frozen desserts, such as sherbets, ice cream, and custards: Measures and cooks ingredients for frozen desserts, according to recipes. Pours mixed ingredients into freezing machine reservoir, and starts machine to churn and freeze ingredients. Removes frozen dessert mixture from machine. Stores frozen desserts in refrigerated room or refrigerator. Molds ice cream or sherbet into various shapes, such as flowers or emblems, using paddle and mold forms. Tints and decorates molded figures with icing, using cream bag and tubes. Mixes and cooks sauces and syrups for use with frozen desserts. May portion frozen desserts for waiters. May carve decorations out of ice.
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

313.684-010 BAKER HELPER (hotel & rest.)
Assists BAKER (hotel & rest.) by performing any combination of following duties in bread-baking department: Carries and distributes supplies, such as flour, shortening, and baking pans. Mixes, kneads, or shapes dough for bread, rolls, muffins, or biscuits. Cuts dough into uniform portions. Greases pans used to mold or bake breads and lines pans with waxed paper. Places pans of dough into oven to bake. Removes baked products from oven. Cleans bakery utensils, equipment, and work area. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 05.12.17 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

313.687-010 COOK HELPER, PASTRY (hotel & rest.) alternate titles: bakeshop cleaner; pastry helper
Assists pastry shop workers, performing any combination of following duties: Carries and distributes supplies and equipment. Mixes, kneads, and shapes dough or batter to make pies, cakes, cookies, and other pastries. Washes and cuts up fruits for desserts and pies. Greases baking tins or lines them with waxed paper. Inserts cakes, pies, and cookies into oven, and removes baked products. Portions pastries, desserts, and ice cream. Washes and scours pots, pans, and other equipment. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 05.12.17 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

315 MISCELLANEOUS COOKS, EXCEPT DOMESTIC

This group includes service occupations concerned with preparing and cooking food in places other than private houses, hotels, or restaurants.

315.131-010 COOK, CHIEF (water trans.)
Supervises and coordinates activities of kitchen personnel and participates in preparation of meals aboard cargo ship: Collaborates with STEWARD/STEWARDESS, CHIEF, CARGO VESSEL (water trans.) to plan menus. Determines time and sequence of cooking operations to meet meal-serving hours. Directs COOK, THIRD (water trans.); SECOND COOK AND BAKER (water trans.); and SCULLION (water trans.) in preparation of foods. Inspects galley and galley equipment, such as pots, ovens, and cutlery, for cleanliness. Butchers and prepares meat, fowl, and fish, and participates in cooking of meats and sauces. May requistion supplies.
GOE: 05.10.08 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

315.131-014 PASTRY CHEF (water trans.)
Supervises and coordinates activities of workers in pastry shop aboard passenger ship to produce puddings, icings, and fancy pastries, and creates new recipes: Receives orders from CHEF, PASSENGER VESSEL (water trans.) to prepare confections. Assigns specific baking tasks and directs workers in task performance. Measures and mixes ingredients, such as flour, flavoring, and fruit, to form concoctions. Kneads dough into desired shape and places dough in oven. Turns oven controls to regulate temperatures and to set time cycle for baking products. Decorates products with icing designs, using spatula and cream bag. Creates new designs and recipes. Inspects pastry shop, baking equipment, and workers for cleanliness. Requisitions supplies and equipment.
GOE: 05.10.08 STRENGTH: M GED: R4 M2 L3 SVP: 8 DLU: 77

315.137-010 CHEF, PASSENGER VESSEL (water trans.)
Supervises and coordinates activities of kitchen workers to prepare and cook food aboard passenger ship: Collaborates with STEWARD/STEWARDESS, CHIEF, PASSENGER SHIP (water trans.) to plan menus. Determines time and sequence of cooking operations to meet meal-serving hours. Delegates to SOUS CHEF (water trans.) responsibility for preparation of food. Directs cooks, bakers, butchers, and other kitchen personnel engaged in preparing, cooking, and serving food. Inspects galleys, bakery, and butcher shop for cleanliness. Requisitions food and galley supplies. Estimates cost of food consumed and compiles cost control records. Authorizes personnel to work overtime.
GOE: 05.05.17 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

315.137-014 SOUS CHEF (water trans.)
Supervises and coordinates activities of kitchen workers to prepare and cook food aboard passenger ship: Receives menus planned by CHEF, PASSENGER VESSEL (water trans.) and STEWARD/STEWARDESS, CHIEF, PASSENGER SHIP (water trans.). Determines kinds and amounts of foodstuffs necessary to prepare items listed on menus. Plans sequence and time of cooking operations to meet meal-serving hours. Assigns specific tasks to cooks of several galleys. Directs cooks performing tasks. Determines size of food portions and observes workers serving food. Evaluates and solves problems encountered, such as substituting items on menus, reusing cooked food, and reducing excess waste and spoilage. Inspects galleys, pantries, serving stations, and butchering and baking shops for cleanliness. May assist in cooking tasks and in preparing hot and cold canapes and hors d'oeuvres for banquets, cocktail parties, and other social functions.
GOE: 05.05.17 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

315.361-010 COOK (any industry) alternate titles: cook, mess
Prepares and cooks family-style meals for crews or residents and employees of institutions: Cooks foodstuffs in quantities according to menu and number of persons to be served. Washes dishes. Bakes breads and pastry [BAKER (hotel & rest.)]. Cuts meat [BUTCHER, MEAT (hotel & rest.)]. Plans menu taking advantage of foods in season and local availability. May serve meals May order supplies and keep records and accounts. May direct activities of one or more workers who assist in preparing and serving meals. May be designated according to work location as Cook, Camp (any industry); Cook, Institution (any industry); Cook, Ranch (agriculture); Cook, Ship (water trans.).
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

315.361-022 COOK, STATION (water trans.)
Prepares, seasons, and cooks food on menu from station aboard passeng vessel: Prepares sauces, dressings, puddings, or relishes to be served with dish Gives directions for setting up station so that food, garnishes, and servic equipment are arranged in serving order. Portions and places food on plate, an arranges garnishes on plate. Must be certified as Food Handler and as Coo by U.S. Coast Guard. May be required to hold Life Boatman certificate. Ma be designated according to station as Cook, Station, Grill (water trans.); according to meal prepared as Cook, Station, Breakfast (water trans.); or accordin to food prepared as Cook, Station, Roast (water trans.); Cook, Station, Sou And Fish (water trans.).
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

315.371-010 COOK, MESS (water trans.) alternate titles: cook, boat cook, ship
Cooks and serves meals to crew on passenger ship: Cleans, cuts, and cook meat, fish, and poultry. Serves food to crewmembers. Washes dishes and clean galley and galley equipment. Requisitions supplies. Compiles cost records o food used.
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

315.381-010 COOK (fishing & hunt.) alternate titles: cook, fishing vessel
Prepares meals for crew and officers on board fishing vessel or in shore fishery establishment. May assist in actual fishing. May purchase food supplies.
GOE: 05.10.08 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

315.381-014 COOK, LARDER (water trans.) alternate titles: garde manger
Prepares cold plate entrees, appetizers, and cocktails for lunch and dinne service, and makes canapes, hors d'oeuvres, and sandwiches for buffets: Slice roast, such as beef, veal, pork, and lamb, for cold plates or sandwiches. Cu luncheon meats, such as head cheese, pork loaf, veal loaf, and ham. Mixe gelatins, grinds up leftover meats, and prepares hot and cold canapes, hor d'oeuvres, and goose liver pate to be served as appetizers. Prepares sandwiche for pantry service outside of meal hours. May prepare food showpieces. Mixe sauces and various seafoods, such as crab, lobster, and shrimp, to prepare cocktails.
GOE: 05.10.08 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

315.381-018 COOK, RAILROAD (r.r. trans.) alternate titles: chef
Prepares, seasons, and cooks food in railroad dining car, following recipe for preplanned menus: Broils steaks, chops, fish, and poultry. Toasts bread an prepares waffles and pancakes, using prepared mixes. Mixes ingredients fo cooked and uncooked desserts, such as pudding, custard, gelatin, and fruit desserts. Washes, peels, cuts, seeds, and cooks vegetables. May inventory supplie of food and prepare requisitions. May carve meats. May supervise other kitche workers. May be designated according to specialties prepared as Cook, Fry (r. trans.). When preparing and serving food to passengers in Pullman Loung (combination sleeping and dining car) may be designated Pullman Attenda (r.r. trans.).
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

315.381-022 COOK, THIRD (water trans.)
Prepares and cooks food aboard cargo vessel: Cleans, cuts, and cooks mea fish, and poultry as directed by COOK, CHIEF (water trans.). Apportions foo for servings. Cleans pots, pans, ranges, and other cooking equipment.
GOE: 05.10.08 STRENGTH: M GED: R3 M1 L2 SVP: 6 DLU: 77

315.381-026 SECOND COOK AND BAKER (water trans.)
Prepares food aboard cargo vessel, as directed by COOK, CHIEF (wate trans.): Bakes bread, rolls, and pastries. Cooks vegetables and prepares dessert Cleans baking area. May apportion cooked foods on plates.

GOE: 05.10.08 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

316 MEATCUTTERS, EXCEPT IN SLAUGHTERING AND PACKING HOUSES

This group includes occupations concerned with cutting and otherwise preparing meat for cooking in hotels and restaurants, or for sale in wholesale or retail trade. Meatcutter occupations in slaughtering and packing houses or centralized meat processing plants are included in Group 525.

316.661-010 CARVER (hotel & rest.) alternate titles: display carver; exhibition carver; meat carver

Carves individual portions from roasts and poultry to obtain maximum number of meat portions, using carving knives and meat-slicing machines: Disjoints roasts and poultry. Slices uniform portions of meat and places sliced meat in steamtable container, or arranges individual portions on plate. Ladles gravy over food and garnishes plate. Removes shells from seafood and bones fish, using forks. May weigh sliced meat to ensure that portions are uniform. May serve food from steamtable. May serve customers [WAITER/WAITRESS, FORMAL (hotel & rest.)].
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

316.681-010 BUTCHER, MEAT (hotel & rest.) alternate titles: butcher; meat cutter

Cuts, trims, bones, ties, and grinds meats, using butcher's cutlery and powered equipment, such as electric grinder and bandsaw, to portion and prepare meat in cooking form: Cuts, trims, and bones carcass sections or prime cuts, using knives, meat saw, cleaver, and bandsaw, to reduce to cooking cuts, such as roasts, steaks, chops, stew cubes, and grinding meat. Cuts and weighs steaks and chops for individual servings. Tends electric grinder to grind meat. Shapes and ties roasts. May estimate requirements and requisition or order meat supply. May receive, inspect, and store meat upon delivery. May record quantity of meat received and issued to cooks. May clean fowl and fish [BUTCHER, CHICKEN AND FISH (hotel & rest.)]. May oversee other butchers and be designated Butcher, Head (hotel & rest.).
GOE: 05.10.08 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

316.684-010 BUTCHER, CHICKEN AND FISH (hotel & rest.) alternate titles: chicken-and-fish cleaner; poultry-and-fish butcher

Butchers and cleans fowl, fish, and shellfish preparatory to cooking: Cleans and prepares fowl, fish, and shellfish, using knife and fork. Discards inedible parts. Cuts up fowl, using knife and cleaver or bandsaw. Bones game fowl and fish, using boning knife. Reshapes boned fowl into natural form for cooking and serving. Cuts fillets and steaks from fish. May butcher poultry in retail establishment and be designated Sales Clerk, Fresh Poultry (retail trade).
GOE: 05.10.08 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

316.684-014 DELI CUTTER-SLICER (retail trade)

Cuts delicatessen meats and cheeses, using slicing machine, knives, or other cutters: Places meat or cheese on cutting board and cuts slices to designated thickness, using knives or other hand cutters. Positions and clamps meat or cheese on carriage of slicing machine. Adjusts knob to set machine for desired thickness. Presses button to start motor that moves carriage past rotary blade that slices meats and cheeses. Stacks cut pieces on tray or platter, separating portions with paper. May weigh and wrap sliced foods and affix sticker showing price and weight.
GOE: 05.12.17 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

316.684-018 MEAT CUTTER (retail trade; wholesale tr.) alternate titles: butcher; salesperson, meats

Cuts and trims meat to size for display or as ordered by customer, using handtools and power equipment, such as grinder, cubing machine, and power saw. Cleans and cuts fish and poultry. May shape, lace, and tie meat cuts by hand, using boning knife, skewer, and twine to form roasts. May place meat in containers to be wrapped by other workers. May place meat on trays in display counter. May clean work area. May unload meat from delivery truck and store meat into refrigerator. May wrap and weigh meat for customers and collect money for sales. May inspect and grade meats and be designated Meat Inspector (retail trade; wholesale tr.).
GOE: 05.10.08 STRENGTH: H GED: R3 M2 L3 SVP: 6 DLU: 81

316.684-022 MEAT-CUTTER APPRENTICE (retail trade; wholesale tr.) alternate titles: butcher apprentice; salesperson apprentice, meats

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 05.10.08 STRENGTH: H GED: R3 M2 L3 SVP: 6 DLU: 77

317 MISCELLANEOUS FOOD AND BEVERAGE PREPARATION OCCUPATIONS

This group includes occupations concerned with preparing food and beverages.

317.384-010 SALAD MAKER (water trans.)

Prepares salads, fruits, melons, and gelatin desserts: Cleans vegetables, fruits, and berries for salads, relishes, and gelatin desserts. Mixes ingredients for green salads, fruit salads, and potato salad. Prepares relish plates of green onions, celery, radishes, and olives. Prepares dressings, such as Thousand Island, French, and Roquefort, to be served on green salads. Peels, cleans, and cuts fruits, to be served for breakfast or compotes. Prepares cold sandwiches and cheeses. Requisitions supplies daily.
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

317.664-010 SANDWICH MAKER (hotel & rest.) alternate titles: sandwich-counter attendant

Prepares sandwiches to individual order of customers: Receives sandwich orders from customers. Slices cold meats and cheese by hand or machine. Selects and cuts bread, such as white, whole wheat, or rye, and toasts or grills bread, according to order. Places meat or filling and garnish, such as chopped or sliced onion and lettuce, between bread slices. Prepares garnishes for sandwiches, such as sliced tomatoes and pickles. May cook, mix, and season ingredients to make dressings, fillings, and spreads. May fry hamburgers, bacon, steaks, and eggs for hot sandwiches. May butter bread slices, using knife.
GOE: 05.12.17 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 80

317.684-010 COFFEE MAKER (hotel & rest.) alternate titles: coffee-urn attendant

Brews coffee, tea, and chocolate, using coffee urns, drip or vacuum coffee makers, teapots, drink mixers, and other kitchen equipment. Performs various duties to assist in filling customers' orders, such as cooking hot cakes and waffles, boiling eggs, and making toast [PANTRY GOODS MAKER (hotel & rest.)]. Cleans and polishes utensils and equipment used in food and beverage preparation. May serve coffee. May prepare and issue iced beverages, such as coffee, tea, and fountain or bottled drinks, to be served by COUNTER ATTENDANT, LUNCHROOM OR COFFEE SHOP (hotel & rest.).
GOE: 05.12.17 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

317.684-014 PANTRY GOODS MAKER (hotel & rest.)

Prepares salads, appetizers, sandwich fillings, and other cold dishes: Washes, peels, slices, and mixes vegetables, fruits, or other ingredients for salads, cold plates, and garnishes. Carves and slices meats and cheese. Portions and arranges food on serving dishes. Prepares fruit or seafood cocktails and hors d'oeuvres. Measures and mixes ingredients to make salad dressings, cocktail sauces, gelatin salads, cold desserts, and waffles, following recipes. Makes sandwiches to order [SANDWICH MAKER (hotel & rest.) 317.664-010]. Brews tea and coffee [COFFEE MAKER (hotel & rest.) 317.684-010]. Prepares breakfast and dessert fruits, such as melons, grapefruit, and bananas. Portions fruit sauces and juices. Distributes food to waiters/waitresses to serve to customers. May serve food to customers. May be designated Salad Maker (hotel & rest.) when specializing in making salads.
GOE: 05.10.08 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 81

317.687-010 COOK HELPER (hotel & rest.)

Assists workers engaged in preparing foods for hotels, restaurants, or ready-to-serve packages by performing any combination of following duties: Washes, peels, cuts, and seeds vegetables and fruits. Cleans, cuts, and grinds meats, poultry, and seafood. Dips food items in crumbs, flour, and batter to bread them. Stirs and strains soups and sauces. Weighs and measures designated ingredients. Carries pans, kettles, and trays of food to and from work stations, stove, and refrigerator. Stores foods in designated areas, utilizing knowledge of temperature requirements and food spoilage. Cleans work areas, equipment and utensils, segregates and removes garbage, and steam-cleans or hoses garbage containers [KITCHEN HELPER (hotel & rest.) 318.687-010]. Distributes supplies, utensils, and portable equipment, using handtruck. May be designated according to worker assisted as Cook Helper, Broiler or Fry (hotel & rest.); Cook Helper, Dessert (hotel & rest.); Cook Helper, Vegetable (hotel & rest.); Pantry Goods Maker Helper (hotel & rest.). Performs other duties as described under HELPER (any industry) Master Title.
GOE: 05.12.17 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 81

318 KITCHEN WORKERS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with performing such duties as washing and drying dishes; polishing silverware; and disposing of garbage and trash.

318.137-010 KITCHEN STEWARD/STEWARDESS (hotel & rest.)

Supervises kitchen employees not actively engaged in cooking to ensure clean, efficient, and economical food service: Assigns KITCHEN HELPER (hotel & rest.) and other noncooking employees to such activities as dishwashing and silver cleaning. Inspects kitchens, workrooms, and equipment for cleanliness and order. Hires and discharges employees, and posts time and production records. Observes and evaluates employees' performance to devise methods for improving efficiency and guard against theft and wastage. Takes inventories of china, silverware, and glassware. Reports shortages and requisitions replacement of equipment from STEWARD/STEWARDESS (hotel & rest.) or PURCHASING AGENT (profess. & kin.). May be working supervisor in establishments employing an EXECUTIVE CHEF (hotel & rest.), who devotes full time to supervising kitchen employees. May be designated according to area of work as Pantry Steward/Stewardess (hotel & rest.).
GOE: 05.12.01 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

318.687-010 KITCHEN HELPER (hotel & rest.) alternate titles: cookee; cook helper; kitchen hand; kitchen porter; kitchen runner

Performs any combination of following duties to maintain kitchen work areas and restaurant equipment and utensils in clean and orderly condition: Sweeps

and mops floors. Washes worktables, walls, refrigerators, and meat blocks. Segregates and removes trash and garbage and places it in designated containers. Steam-cleans or hoses-out garbage cans. Sorts bottles, and breaks disposable ones in bottle-crushing machine. Washes pots, pans, and trays by hand. Scrapes food from dirty dishes and washes them by hand or places them in racks or on conveyor to dishwashing machine. Polishes silver, using burnishing-machine tumbler, chemical dip, buffing wheel, and hand cloth. Holds inverted glasses over revolving brushes to clean inside surfaces. Transfers supplies and equipment between storage and work areas by hand or by use of handtruck. Sets up banquet tables. Washes and peels vegetables, using knife or peeling machine. Loads or unloads trucks picking up or delivering supplies and food.
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

318.687-014 SCULLION (water trans.)
Performs any combination of tasks involved in cleaning ship's galleys, bakery, and butcher shop: Cleans pots and pans, dishes, chopping blocks, and service stations, by hand or using dishwashing machine. Polishes silver chafing dishes and coffee pots. Places washed glasses in rack to prevent breakage. Defrosts and cleans reefers and iceboxes. Cleans and culls vegetables and fruits. Dumps garbage and cleans can. Swabs deck of assigned area. Carries supplies from reefers and storerooms to galleys, pantries, bakery, and butcher shop. Stocks serving stations with dishes and stores. May be designated according to type of work performed as Baker Scullion (water trans.); Butcher Scullion (water trans.); Glass Scullion (water trans.); Silverware Washer (water trans.); Vegetable Scullion (water trans.); or according to area to which assigned as Main-Galley Scullion (water trans.). May give directions to workers and be designated Scullion Chief (water trans.). When work is performed on cargo ship, is usually known as Utility Hand (water trans.).
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

318.687-018 SILVER WRAPPER (hotel & rest.)
Spreads silverware on absorbent cloth to remove moisture. Wraps individual place settings in napkins or inserts them with prescribed accessory condiments in plastic bag and closes bag with electric sealer. May immerse silverware in cleaning solution to remove soap stains before wrapping. May place tarnished and bent eating utensils aside.
GOE: 05.12.18 STRENGTH: L GED: R2 M1 L1 SVP: 1 DLU: 77

319 FOOD AND BEVERAGE PREPARATION AND SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with food and beverage preparation and service.

319.137-010 FOOD-SERVICE SUPERVISOR (hotel & rest.)
Supervises employees engaged in serving food in hospital, nursing home, school, or similiar institutions, and in maintaining cleanliness of food service areas and equipment: Trains workers in performance of duties. Assigns and coordinates work of employees to promote efficiency of operations. Supervises serving of meals. Inspects kitchen and dining areas and kitchen utensils and equipment to ensure sanitary standards are met. Keeps records, such as amount and cost of meals served and hours worked by employees. Requisitions and inspects foodstuffs, supplies, and equipment to maintain stock levels and ensure standards of quality are met. Prepares work schedules and evaluates work performance of employees. May direct preparation of foods and beverages. May assist DIETITIAN, CLINICAL (profess. & kin.) 077.127-014 in planning menus. May interview, select, or hire new employees. When supervising workers engaged in tray assembly may be designated Tray-Line Supervisor (medical ser.).
GOE: 09.05.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 86

319.137-014 MANAGER, FLIGHT KITCHEN (hotel & rest.)
Supervises and coordinates activities of kitchen employees engaged in purchasing and preparing food and supplies for food service department of airline: Reviews reservations and flight information to ascertain and compute types and quantities of food needed. Orders and schedules delivery of food and supplies from local vendors. Prepares work schedules for kitchen personnel to ensure presence of requisite labor force on each shift. Oversees and coordinates work of cooks and other kitchen employees engaged in preparing meals to ensure adherence to recipes and quality standards. Controls alcoholic beverage supply by perpetual inventory and prepares government forms as prescribed by law to account for consumption of taxable and nontaxable beverages. Inspects kitchen for conformance to government and company safety and sanitation requirements. Participates in collective bargaining and settling of union grievances involving department employees.
GOE: 11.11.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

319.137-018 MANAGER, INDUSTRIAL CAFETERIA (hotel & rest.) alternate titles: dining-service supervisor
Supervises and coordinates activities of workers engaged in preparing and serving balanced meals to employees of industrial plant: Plans daily menus to accommodate employees of all shifts, keeping expenses within budget. Purchases and keeps adequate supply of food and oversees storage and issuance of supplies. Supervises subordinates and coordinates activities of workers engaged in preparing food, serving meals, and cleaning kitchen and dining room. Keeps records and makes reports of expenditures. Cooperates with medical personnel in providing special diets for employees requiring individual attention. May distribute pamphlets on food and health habits to employees. May balance receipts and prepare bank deposit slip. May interview and hire new workers.
GOE: 11.11.04 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

319.137-022 SUPERVISOR, COMMISSARY PRODUCTION (hotel & rest.) alternate titles: cooked foods supervisor
Supervises and coordinates activities of commissary workers engaged in preparing, assembling, packaging, and shipping ready-to-eat food items: Checks inventories and orders foodstuffs and supplies. Prescribes quantities, production sequence, and time for items to be prepared, cooked, assembled, and packaged to meet production schedule. Specifies arrangement of equipment, work stations, and staffing to prepare for production. Explains and demonstrates work methods to train employees and establish size of food portions. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 11.11.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

319.137-026 SUPERVISOR, KOSHER DIETARY SERVICE (hotel & rest.) alternate titles: moshgiach; overseer, kosher kitchen; supervisor, kashruth
Supervises workers engaged in storing, preparing, and cooking meats, poultry, and other foods in restaurants, catering halls, hospitals, or other establishments to ensure observance of Hebrew dietary laws and customs: Examines incoming purchases of meat and fowl to ensure that slaughtering and selection of meat cuts have been performed according to dietary law. Inspects equipment, utensils, and food supplies to ascertain that separation of dairy and meat products is maintained and that kosher foods and supplies are kept separate from nonkosher foods. Ensures that silverware, dishes, and utensils are sent to prescribed meat kitchen or dairy kitchen for washing. Washes and salts meat and fowl in accordance with Hebrew ritual. Directs kitchen staff in methods of complying with dietary laws.
GOE: 05.10.08 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

319.137-030 KITCHEN SUPERVISOR (hotel & rest.) alternate titles: dietary assistant; manager, kitchen
Supervises and coordinates activities of food preparation, kitchen, pantry, and storeroom personnel and purchases or requisitions foodstuffs and kitchen supplies: Plans or participates in planning menus, preparing and apportioning foods, and utilizing food surpluses and leftovers. Specifies number of servings to be made from any vegetable, meat, beverage, and dessert to control portion costs. Supervises noncooking personnel, such as KITCHEN HELPER (hotel & rest.) 318.687-010, to ensure cleanliness of kitchen and equipment. Supervises COOK (hotel & rest.) 313.361-014 and tastes, smells, and observes food to ensure conformance with recipes and appearance standards. Supervises workers engaged in inventory, storage, and distribution of foodstuffs and supplies. Purchases foodstuffs, kitchen supplies, and equipment, or requisitions them from PURCHASING AGENT (profess. & kin.) 162.157-038. Hires and discharges employees. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May set prices to be charged for food items. May meet with professional staff, customers, or client group to resolve menu inconsistencies or to plan menus for special occasions. May assist dietitian to plan, change, test, and standardize recipes to increase number of servings prepared. This job occurs typically in restaurants, cafeterias, and institutions as opposed to STEWARD/STEWARDESS (hotel & rest.) 310.137-018 which occurs typically in hotels.
GOE: 05.10.08 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 86

319.464-010 AUTOMAT-CAR ATTENDANT (r.r. trans.)
Stocks automatic food dispensing machines on railroad passenger car, makes change, and answers passengers' queries regarding food selections: Places portions of specified foods, beverages, and desserts on shelves in machine. Inserts labels below windows of machines to indicate type of food or drink on shelf and available for dispensing. Makes change for passengers and answers questions concerning selections. Observes gauges registering temperature in machine to ensure that food and drink is kept cool or warm. Corrects jamming and common malfunctions of machines. Prepares requisition for food and drink supplies. Cleans interior and exterior of machines, using damp cloth. Removes refuse from tables and wipes them clean.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

319.464-014 VENDING-MACHINE ATTENDANT (hotel & rest.)
Stocks machines and assists customers in facility where food is dispensed from coin-operated machines: Places food or drink items on shelves of vending machines and changes shelf labels as required to indicate selections. Makes change for customers and answers questions regarding selections. Adjusts temperature gauges to maintain food items at specified temperatures. Performs minor repairs or adjustments on machines to correct jams or similar malfunctions, using handtools. Prepares requisitions for food and drink supplies. Cleans interior and exterior of machines, using damp cloth. Maintains eating area in orderly condition. May sell precooked foods from hot table. May remove money from vending machines and keep records of receipts.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

319.467-010 FOOD ORDER EXPEDITER (hotel & rest.)
Calls out and verifies food orders in drive-in restaurant or restaurant specializing in fast service: Removes order placed on device, such as wheel or nail board, at kitchen service counter. Calls out food orders to cooks and pantry and fountain workers. Examines portioning and garnishing of completed food order. Reviews order for accuracy and tabulates check. Notifies serving personnel

when order is ready. May record count of items, such as entrees drawn from supply or entrees served, to accumulate food control data. May prepare and cook foods that can be completed in short time [COOK, FAST FOOD (hotel & rest.) 313.374-010].
GOE: 05.09.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

319.474-010 FOUNTAIN SERVER (hotel & rest.) alternate titles: fountain dispenser; ice cream dispenser; soda clerk; soda dispenser; soda jerker

Prepares and serves soft drinks and ice cream dishes, such as ice cream sundaes, malted milks, sodas, and fruitades, using memorized formulas and methods or following directions. Cleans glasses, dishes, and fountain equipment and polishes metalwork on fountain. May prepare and serve sandwiches [SANDWICH MAKER (hotel & rest.) 317.664-010] or other foods [COUNTER ATTENDANT, LUNCHROOM OR COFFEE SHOP (hotel & rest.) 311.477-014]. May verify and total customer's bill, accept cash, and make change.
GOE: 09.04.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 80

319.484-010 FOOD ASSEMBLER, KITCHEN (hotel & rest.) alternate titles: dining-service worker; food assembler, commissary kitchen; food-tray assembler; supply service worker; tray setter

Prepares meal trays in commissary kitchen for inflight service of airlines, multiunit restaurant chains, industrial caterers, or educational, and similar institutions, performing any combination of following duties: Reads charts to determine amount and kind of foods and supplies to be packaged. Fills individual serving cartons with portions of various foods and condiments, such as cream, jams, and sauces, by hand or using automatic filling machine. Portions and garnishes hot cooked foods, such as meat and vegetables, into individual serving dishes. Stores dishes of hot food on shelves of portable electric warming cabinet or food cart for stowing aboard airplane or transfer to restaurant or cafeteria dining unit. Removes pans of portioned salads, desserts, rolls, cream, and other cold food items from refrigerator or pantry, and places at appropriate stations of tray assembly counter to facilitate loading meal trays. Places food items, silverware, and dishes in depression of compartmented food tray passing on conveyor belt. Examines filled tray for completeness and appearance, and stores completed trays in refrigerated storage cabinets to be transported to airplane, dining room, or cafeteria. May be designated according to type of food assembled as Appetizer Packer (hotel & rest.); Casserole Preparer (hotel & rest.); Cold-Food Packer (hotel & rest.); Hot-Food Packer (hotel & rest.).
GOE: 05.12.17 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

319.677-010 CATERER HELPER (personal ser.)

Prepares and serves food and refreshments at social affairs, under supervision of CATERER (personal ser.): Arranges tables and decorations. Prepares hors d'oeuvres, fancy and plain sandwiches, and salads. Serves foods and beverages to guests. Washes and packs dishes and utensils for removal to catering establishment.
GOE: 09.05.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

319.677-014 FOOD-SERVICE WORKER, HOSPITAL (medical ser.) alternate titles: dietary aide; tray worker

Prepares and delivers food trays to hospital patients, performing any combination of following duties on tray line: Reads production orders on color-coded menu cards on trays to determine items to place on tray. Places items, such as eating utensils, napkins, and condiments on trays. Prepares food items, such as sandwiches, salads, soups, and beverages. Places servings in blender to make foods for soft or liquid diets. Apportions and places food servings on plates and trays according to diet list on menu card. Examines filled tray for completeness and places on cart, dumbwaiter, or conveyor belt. Pushes carts to halls or ward kitchen. Serves trays to patients. Collects and stacks dirty dishes on cart and returns cart to kitchen. Washes dishes and cleans work area, tables, cabinets, and ovens. Collects and places garbage and trash in designated containers. May record amount and types of special food items served to patients. May assemble and serve food items to hospital staff in cafeteria.
GOE: 09.05.02 STRENGTH: M GED: R3 M2 L2 SVP: 2 DLU: 89

319.687-010 COUNTER-SUPPLY WORKER (hotel & rest.)

Replenishes food and equipment at steamtables and serving counters of cafeteria to facilitate service to patrons: Carries food, dishes, trays, and silverware from kitchen and supply departments to serving counters. Garnishes foods and positions them on table to ensure their visibility to patrons and convenience in serving. Keeps assigned area and equipment free of spilled foods. Keeps shelves of vending machines stocked with food when working in automat.
GOE: 09.05.02 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

32 LODGING AND RELATED SERVICE OCCUPATIONS

This division includes occupations concerned with providing accommodations to guests in boarding houses or lodging houses.

320 BOARDING-HOUSE AND LODGING-HOUSE KEEPERS

This group includes occupations concerned with managing boarding or rooming houses to provide accommodations for transients and permanent guests.

320.137-010 MANAGER, BOARDING HOUSE (hotel & rest.) alternate titles: manager, guest house

Supervises and coordinates activities of workers in boarding house engaged in providing meals and lodging accommodations for transients and permanent guests: Advertises vacancies and shows and rents rooms. Supervises household employees engaged in such tasks as cleaning rooms, issuing linens, and cooking and serving meals. Plans menus and purchases supplies. Collects rents, pays bills, and posts information in records. Resolves complaints regarding food, accommodations, or service. May participate in cleaning and cooking activities. May make minor repairs to building and furnishings. When meal service is not provided, is designated Manager, Rooming House (hotel & rest.).
GOE: 11.11.01 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

320.137-014 MANAGER, LODGING FACILITIES (hotel & rest.)

Manages and maintains temporary or permanent lodging facilities, such as small apartment houses, motels, small hotels, trailer parks, and boat marinas: Shows and rents or assigns accommodations. Registers guests. Collects rents and records data pertaining to rent funds and expenditures. Resolves occupants' complaints. Purchases supplies and arranges for outside services, such as fuel delivery, laundry, maintenance and repair, and trash collection. Provides telephone answering service for tenants, delivers mail and packages, and answers inquiries concerning travel routes, recreational facilities, scenic attractions, and eating establishments. Cleans public areas, such as entrances, halls, and laundry rooms, and fires boilers. Makes minor electrical, plumbing, and structural repairs. Mows and waters lawns, and cultivates flower beds and shrubbery. Cleans accommodations after guests' departure. Provides daily maid service in overnight accommodations. May rent equipment, such as rowboats, water skis, and fishing tackle. May coordinate intramural activities of patrons of park. May arrange for medical aid for park patron. May sell light lunches, candy, tobacco, and other sundry items. May be designated according to type of establishment managed as Manager, Apartment House (hotel & rest.); Manager, Hotel (hotel & rest.); Manager, Marina (hotel & rest.); Manager, Motel (hotel & rest.); Manager, Tourist Camp (hotel & rest.); Manager, Trailer Park (hotel & rest.).
GOE: 11.11.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 86

321 HOUSEKEEPERS, HOTELS AND INSTITUTIONS

This group includes occupations concerned with supervising workers in maintaining cleanliness and orderliness in hotels or institutions. Some housekeepers purchase housekeeping supplies and equipment and take periodic inventories.

321.137-010 HOUSEKEEPER (hotel & rest.; medical ser.; real estate) alternate titles: floor housekeeper

Supervises work activities of cleaning personnel to ensure clean, orderly attractive rooms in hotels, hospitals, and similar establishments: Obtains list of vacant rooms which need to be cleaned immediately and list of prospective check-outs or discharges in order to prepare work assignments. Assigns workers their duties, and inspects work for conformance to prescribed standards of cleanliness. Advises manager, desk clerk, or admitting personnel of rooms ready for occupancy. Inventories stock to ensure adequate supplies. Issues supplies and equipment to workers. Investigates complaints regarding housekeeping service and equipment, and takes corrective action. Examines rooms, halls, and lobbies to determine need for repairs or replacement of furniture or equipment, and makes recommendations to management. Screens job applicants, hires new employees, and recommends promotions, transfers, or dismissals. Conducts orientation training of new employees and in-service training of other employees to explain company policies, housekeeping work procedures, and to demonstrate use and maintenance of equipment. Attends training seminars to perfect housekeeping techniques and procedures, and enhance supervisory skills. Records data concerning work assignments, personnel actions, and time cards, and prepares periodic reports. Attends periodic staff meetings with other department heads to discuss company policies and patrons' complaints, and to make recommendations to improve service and ensure more efficient operation. May prepare reports concerning room occupancy, payroll expenses, and department expenses.
GOE: 05.12.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 89

321.137-014 INSPECTOR (hotel & rest.)

Supervises cleaning personnel and inspects hotel guestrooms, bathrooms, corridors, and lobbies: Assigns work to cleaning personnel and trains personnel in housekeeping duties. Posts room occupancy records. Adjusts guests' complaints regarding housekeeping service or equipment. Writes requisitions for room supplies and furniture renovation or replacements. Reports need for room redecoration to HOUSEKEEPER (hotel & rest.; medical ser.; real estate). Examines carpets, drapes and furniture for stains, damage, or wear. Checks and counts linens and supplies. Records inspection results and notifies cleaning personnel of inadequacies. May perform cleaning duties. May be designated according to area supervised as Floor Supervisor (hotel & rest.).
GOE: 05.12.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

323 HOUSECLEANERS, HOTELS, RESTAURANTS, AND RELATED ESTABLISHMENTS

This group includes occupations concerned with general cleaning and upkeep in hotels, restaurants, hospitals, and other institutions. Includes heavy duties, such as laying carpets and rugs and arranging furniture, and light duties, such as making beds, dusting furniture and fixtures, and replenishing linens. Includes performing minor personal services for guests.

323.137-010 SUPERVISOR, HOUSECLEANER (hotel & rest.)
Supervises and coordinates activities of personnel engaged in preparing establishment's facilities for banquets and conventions: Assigns duties and instructs workers in collection, assembly, and arrangement of articles for convention or banquet hall and conference rooms, such as furnishings, decorations, displays, microphones, and tableware. Inspects facilities for completeness of arrangements and instructs personnel to correct errors. Prepares daily work assignments roster and maintains work performance records. May perform cleaning duties for banquets and conventions and may interview and hire [HOUSECLEANER (hotel & rest.)].
GOE: 05.12.01 STRENGTH: M GED: R3 M2 L3 SVP: 6 DLU: 77

323.687-010 CLEANER, HOSPITAL (medical ser.) alternate titles: housekeeper, hospital
Cleans hospital patient rooms, baths, laboratories, offices, halls, and other areas: Washes beds and mattresses, and remakes beds after dismissal of patients. Keeps utility and storage rooms in clean and orderly condition. Distributes laundered articles and linens. Replaces soiled drapes and cubicle curtains. Performs other duties as described under CLEANER (any industry) I Master Title. May disinfect and sterilize equipment and supplies, using germicides and sterilizing equipment.
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 87

323.687-014 CLEANER, HOUSEKEEPING (any industry) alternate titles: maid
Cleans rooms and halls in commercial establishments, such as hotels, restaurants, clubs, beauty parlors, and dormitories, performing any combination of following duties: Sorts, counts, folds, marks, or carries linens. Makes beds. Replenishes supplies, such as drinking glasses and writing supplies. Checks wraps and renders personal assistance to patrons. Moves furniture, hangs drapes, and rolls carpets. Performs other duties as described under CLEANER (any industry) I Master Title. May be designated according to type of establishment cleaned as Beauty Parlor Cleaner (personal ser.); Motel Cleaner (hotel & rest.); or according to area cleaned as Sleeping Room Cleaner (hotel & rest.).
GOE: 05.12.18 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 86

323.687-018 HOUSECLEANER (hotel & rest.) alternate titles: hall cleaner; mover; night cleaner
Performs any combination of following duties to maintain hotel premises in clean and orderly manner: Moves and arranges furniture. Turns mattresses. Hangs draperies. Dusts venetian blinds. Polishes metalwork. Prepares sample rooms for sales meetings. Arranges decorations, apparatus, or furniture for banquets and social functions. Collects soiled linens for laundering, and receives and stores linen supplies in linen closet. Performs other duties as described under CLEANER (any industry) I Master Title. May deliver television sets, ironing boards, baby cribs, and rollaway beds to guests rooms. May clean swimming pool with vacuum. May clean and remove debris from driveway and garage areas. May be designated according to specialization as Curtain Cleaner (hotel & rest.); Housecleaner, Floor (hotel & rest.); Linen-Room Worker (hotel & rest.); Porter, Lobby (hotel & rest.); Vacuum Worker (hotel & rest.).
GOE: 05.12.18 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 81

324 BELLHOPS AND RELATED OCCUPATIONS

This group includes occupations concerned with catering to wants of guests at a hotel or related establishment, and performing general services, such as escorting guests to rooms, carrying luggage, running errands, delivering ice, beverages, and packages, and paging guests.

324.137-010 BAGGAGE PORTER, HEAD (hotel & rest.)
Supervises and directs activities of PORTERS, BAGGAGE (hotel & rest.) engaged in handling baggage and related work for hotel patrons: Adjusts work schedules according to work load and makes individual task assignments. Advises PORTERS, BAGGAGE (hotel & rest.) of action to be taken in response to unusual requests. Resolves guests' complaints pertaining to conduct of PORTERS, BAGGAGE (hotel & rest.) and lost or mishandled baggage. May perform personnel duties, such as screening, hiring, giving directions to new workers, and maintaining time records. May give travel information. May act as agent for transportation company. May participate in baggage handling activities and setting up sample rooms.
GOE: 09.05.03 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

324.137-014 BELL CAPTAIN (hotel & rest.)
Supervises BELLHOPS (hotel & rest.) engaged in duties, such as paging, running errands, and giving information. Calls BELLHOPS (hotel & rest.) to escort guests to rooms or perform related services. Determines work schedules and keeps time records. Inspects workers for neatness and uniform dress. Instructs workers in procedures regarding requests from guests, utilizing knowledge of hotel facilities and local merchants and attractions. Furnishes information, makes reservations, and obtains tickets for guests to social and recreational events or for travel. May report suspicious behavior of patrons to hotel security personnel. May pick up and bundle guests' laundry for outside cleaning service. May perform duties of subordinates.
GOE: 09.05.03 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

324.477-010 PORTER, BAGGAGE (hotel & rest.) alternate titles: porter, luggage
Delivers luggage to and from hotel rooms, sets up sample rooms for sales personnel and performs related services as requested by guest or BAGGAGE PORTER, HEAD (hotel & rest.). Transfers trunks, packages, and other baggage to room or loading area, using handtruck. Arranges for outgoing freight, express or mail shipments, computes charges, tags article, and records information, such as addressee, addressor, carrier, and charges, on specified forms. Sets up display tables, racks, or shelves and assists sales personnel in unpacking and arranging merchandise display. May supply guests with travel information, such as transportation rates, routes, and schedules. May escort incoming guest to room [BELLHOP (hotel & rest.)]. May arrange for cleaning, laundering, and repair of guests' clothing and other items. May compute charge slips for services rendered guests and forwards slips to bookkeeping department.
GOE: 09.05.03 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

324.577-010 ROOM-SERVICE CLERK (hotel & rest.) alternate titles: delivery-room clerk; package clerk; receiving-room clerk; runner
Performs any combination of following tasks related to serving guests in apartment hotels: Delivers and removes packages, laundry, clothes, groceries, and other articles to and from guests rooms or servidors (cabinets built into doors of hotel rooms). Collects supply orders from various departments and delivers to PURCHASING AGENT (profess. & kin.). Delivers mail to various departments and guests. Records information pertaining to services rendered. May arrange for pressing clothes and shining shoes, sending and receiving packages, and in maintaining valet service. May press clothes and shine shoes [SHOE SHINER (personal ser.)]. May supervise activities of workers engaged in delivering packages to hotel guests.
GOE: 09.05.03 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

324.677-010 BELLHOP (hotel & rest.)
Performs any combination of following duties to serve hotel guests: Escorts incoming hotel guests to rooms, assists with hand luggage, and offers information pertaining to available services and facilities of hotel, points of interest, and entertainment attractions. Inspects guest's room to ensure furnishings are in order and supplies are adequate. Explains features of room, such as operation of radio, television, and night-lock, and how to place telephone calls. Pages guests in lobby, dining room, or other parts of hotel. Delivers messages and runs errands. Delivers room service orders. Picks up articles for laundry and valet service. Calls taxi for guests. Transports guests about premises or local areas in car or motorized cart. Keeps record of calls for service. Delivers packages, suitcases, and trunks, and sets up sample rooms [PORTER, BAGGAGE (hotel & rest.) 324.477-010]. Tidies lobby [HOUSECLEANER (hotel & rest.) 323.687-018]. Operates elevator [ELEVATOR OPERATOR (any industry) 388.663-010]. May be known as Page (hotel & rest.) when paging guests.
GOE: 09.05.03 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 81

324.677-014 DOORKEEPER (any industry)
Serves residents, guests, or patrons of hotel, store, apartment building, hospital, or similar establishment by opening doors, hailing taxicabs, answering inquiries, assisting elderly or infirm persons into automobiles, and performing related services. Prevents entrance of unauthorized or undesirable persons. May forcibly eject inebriated or rowdy persons from premises. May notify guests by telephone of delivery of automobiles, packages, or arrival of visitors. May carry baggage.
GOE: 09.05.04 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

329 LODGING AND RELATED SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with providing accommodations to guests in boarding houses, marinas, or lodging houses.

329.137-010 SUPERINTENDENT, SERVICE (hotel & rest.) alternate titles: manager, service; service supervisor; superintendent, house
Supervises and coordinates activities of workers engaged in handling baggage, operating elevators, and cleaning public areas of hotel: Hires workers and makes assignments. Adjusts guests' complaints regarding service personnel. Conducts investigations for lost baggage. May arrange for services, such as stenographic, notary public or baby sitting. May perform tasks of subordinates.
GOE: 09.01.04 STRENGTH: L GED: R3 M3 L3 SVP: 7 DLU: 77

329.161-010 MANAGER, CAMP (amuse. & rec.)
Directs operation of recreation camp and coordinates activities of staff: Inspects camp facilities prior to campers' arrival for condition of pool, buildings, and recreation equipment. Assigns staff to camp maintenance duties in area, such as painting, plumbing, and carpentry; and inspects completed work, utilizing experience and knowledge. Inspects facilities prior to campers' departure to determine damage assessments. Registers and informs campers about camp accommodations and regulations. Prepares and collects fees, and issues receipts.
GOE: 11.11.02 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 86

329.467-010 ATTENDANT, LODGING FACILITIES (hotel & rest.) alternate titles: auto-camp attendant; caretaker, resort; tourist-camp attendant

Performs various clerical, housekeeping, and maintenance duties at tourist camp, motel, trailer park, vacation resort, or lodge: Informs guests concerning services and facilities available. Registers guests, assigns cabins, rooms, or trailer spaces, and collects rents. Issues soap, towels, and other supplies to guests. Sweeps and mops floors, mows lawn, maintains outside recreational areas, and performs other general cleaning and maintenance duties. May service tourists' cars with gasoline, oil, and water. May collect resort admission fees and direct parking of cars.

GOE: 05.10.04 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

329.677-010 PORTER, MARINA (water trans.)

Performs any of following services for patrons at dockside: Secures boat to dock with mooring lines. Connects utility lines (telephone, power, and water) to boat. Operates motor vehicle to transport patrons and baggage to and from dockside. Reports disturbances in dock area to superior. May pump water from boats. May deliver ice and written messages to patrons. May police dock area.

GOE: 09.05.03 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

329.683-010 ATTENDANT, CAMPGROUND (amuse. & rec.) alternate titles: campground hand;

Performs general maintenance on facilities and grounds at recreational camp or park: Operates riding lawn mower to mow grass. Checks buildings and furnishings, repairs minor damage, using handtools, and reports major repair needs to DIRECTOR, CAMP (social ser.). Replaces light bulbs. Carries and places supplies in storage areas. Cleans swimming pool, using vacuum cleaner and scrub brushes. Measures and pours chemicals into pool water to maintain chemical balance. Performs minor repairs to dock, and keeps lakefront swimming area clean and free from hazards. Drives truck to pick up trash and garbage for delivery to central area.

GOE: 05.12.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

33 BARBERING, COSMETOLOGY, AND RELATED SERVICE OCCUPATIONS

This division includes occupations concerned with rendering beauty and related treatments to individuals.

330 BARBERS

This group includes occupations concerned with cutting and shaping hair and mustaches, shaving whiskers and trimming beards, and giving facial massages, shampoos, and scalp treatments. Includes fitting hair pieces.

330.371-010 BARBER (personal ser.) alternate titles: haircutter; tonsorial artist

Provides customers with barbering services: Cuts, shapes, trims, and tapers hair, using clippers, comb, blow-out gun, and scissors. Applies lather and shaves beard or shapes hair contour (outline) on temple and neck, using razor. Performs other tonsorial services, such as applying hairdressings or lotions, dyeing, shampooing, singeing, or styling hair, and massaging face, neck, or scalp. Records service charge on ticket or receives payment. Cleans work area and work tools. Orders supplies. May sell lotions, tonics, or other cosmetic supplies.

GOE: 09.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 81

330.371-014 BARBER APPRENTICE (personal ser.)

Performs duties as described under APPRENTICE (any industry) Master Title.

GOE: 09.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

331 MANICURISTS

This group includes occupations concerned with cleaning, shaping, and polishing fingernails, rubbing lotions on hands and massaging them.

331.674-010 MANICURIST (personal ser.)

Cleans, shapes, and polishes customers' fingernails and toenails: Removes previously applied nail polish, using liquid remover and swabs. Shapes and smooths ends of nails, using scissors, files, and emery boards. Cleans customers' nails in soapy water, using swabs, files, and orange sticks. Softens nail cuticles with water and oil, pushes back cuticles, using cuticle knife, and trims cuticles, using scissors or nippers. Whitens underside of nails with white paste or pencil. Polishes nails, using powdered polish and buffer, or applies clear or colored liquid polish onto nails with brush. May perform other beauty services such as giving facials, and shampooing, tinting, and curling hair [COSMETOLOGIST (personal ser.)].

GOE: 09.05.01 STRENGTH: S GED: R2 M1 L2 SVP: 3 DLU: 77

331.674-014 FINGERNAIL FORMER (personal ser.)

Forms artificial fingernails on customer's fingers: Roughens surfaces of fingernails, using abrasive wheel. Attaches paper forms to tips of customer's fingers to support and shape artificial nails. Brushes coats of powder and solvent onto nails and paper forms with handbrush to extend nails to desired length. Removes paper forms and shapes and smooths edges of nails, using rotary abrasive wheel. Brushes additional powder and solvent onto new growth between cuticles and nails to maintain nail appearance. May soften, trim, or cut cuticles, using oil, water, knife, or scissors, to prepare customer's nails for application of artificial nails.

GOE: 09.05.01 STRENGTH: S GED: R2 M1 L2 SVP: 3 DLU: 86

332 HAIRDRESSERS AND COSMETOLOGISTS

This group includes occupations concerned with waving, cutting, styling, and coloring hair; giving scalp and facial treatments; and performing related tasks to improve the appearance of beauty shop patrons. Includes fitting and servicing wigs.

332.271-010 COSMETOLOGIST (personal ser.) alternate titles: beautician; beauty culturist; beauty operator; cosmetician

Provides beauty services for customers: Analyzes hair to ascertain condition of hair. Applies bleach, dye, or tint, using applicator or brush, to color customer's hair, first applying solution to portion of customer's skin to determine if customer is allergic to solution. Shampoos hair and scalp with water, liquid soap, dry powder, or egg, and rinses hair with vinegar, water, lemon, or prepared rinses. Massages scalp and gives other hair and scalp-conditioning treatments for hygienic or remedial purposes [SCALP-TREATMENT OPERATOR (personal ser.) 339.371-014]. Styles hair by blowing, cutting, trimming, and tapering, using clippers, scissors, razors, and blow-wave gun. Suggests coiffure according to physical features of patron and current styles, or determines coiffure from instructions of patron. Applies water or waving solutions to hair and winds hair around rollers, or pin curls and finger-waves hair. Sets hair by blow-dry or natural-set, or presses hair with straightening comb. Suggests cosmetics for conditions, such as dry or oily skin. Applies lotions and creams to customer's face and neck to soften skin and lubricate tissues. Performs other beauty services, such as massaging face or neck, shaping and coloring eyebrows or eyelashes, removing unwanted hair, applying solutions that straighten hair or retain curls or waves in hair, and waving or curling hair. Cleans, shapes, and polishes fingernails and toenails [MANICURIST (personal ser.) 331.674-010]. May be designated according to beauty service provided as Facial Operator (personal ser.); Finger Waver (personal ser.); Hair Colorist (personal ser.); Hair Tinter (personal ser.); Marceller (personal ser.); Permanent Waver (personal ser.); Shampooer (personal ser.).

GOE: 09.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 81

332.271-014 COSMETOLOGIST APPRENTICE (personal ser.) alternate titles: beautician apprentice; beauty-culturist apprentice; beauty-operator apprentice; cosmetician apprentice

Performs duties as described under APPRENTICE (any industry) Master Title.

GOE: 09.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

332.271-018 HAIR STYLIST (personal ser.) alternate titles: hairdresser

Specializes in dressing hair according to latest style, period, or character portrayal, following instructions of patron, MAKE-UP ARTIST (amuse. & rec.; motion picture; radio-tv broad.), or script: Questions patron or reads instructions of MAKE-UP ARTIST (amuse. & rec.; motion picture; radio-tv broad.) or script to determine hairdressing requirements. Studies facial features of patron or performing artist and arranges, shapes, and trims hair to achieve desired effect, using fingers, combs, barber scissors, hair-waving solutions, hairpins, and other accessories. Dyes, tints, bleaches, or curls or waves hair as required. May create new style especially for patron. May clean and style wigs. May style hairpieces and be designated Hairpiece Stylist (fabrication, nec).

GOE: 09.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

332.361-010 WIG DRESSER (fabrication, nec; personal ser.) alternate titles: hairdresser

Dresses wigs and hair pieces according to instructions, samples, sketches, or photographs: Attaches wig or hair piece onto model head, using hammer and tacks or pins. Combs and sets hair, using barber and beautician equipment. Arranges hair according to instructions, pictures, or photographs, using brush and comb. Sprays hair with lacquer to keep hair in place. May cut wigs and hair pieces to specified length and style, using scissors or razor. May wash and dry hair pieces.

GOE: 01.06.02 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

333 MAKE-UP OCCUPATIONS

This group includes occupations concerned with applying cosmetics to face or exposed body areas of actors and actresses to improve their appearance or to alter their expressions to those of the characters they are portraying.

333.271-010 BODY-MAKE-UP ARTIST (amuse. & rec.; motion picture)

Applies makeup to bodies of performers in color tone and texture to match facial cosmetics: Consults production schedule to plan work. Mixes oils, greases, and coloring to prepared grease paint for special color effects. Selects liquid makeup of desired shade from stock or adds water to cake of powder to form solutions. Applies grease paint, liquid makeup, and powder to exposed areas of bodies, using sponge, fingers, and powder puffs.

GOE: 01.06.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

334 MASSEURS AND RELATED OCCUPATIONS

This group includes occupations concerned with giving massages to patrons of public baths, beauty parlors, reducing salons, or health clubs, using hands or vibrating equipment.

334.374-010 MASSEUR/MASSEUSE (personal ser.) **alternate titles: bath attendant; bath-house attendant; rubber**

Massages customers and administers other body conditioning treatments for hygienic or remedial purposes: Applies alcohol, lubricants, or other rubbing compounds. Massages body, using such techniques as kneading, rubbing, and stroking flesh, to stimulate blood circulation, relax contracted muscles, facilitate elimination of waste matter, or to relieve other conditions, using hands or vibrating equipment. Administers steam or dry heat, ultraviolet or infrared, or water treatments on request of customer or instructions of physician. May give directions to clients in activities, such as reducing or remedial exercises. May examine client and recommend body conditioning activities or treatments. May record treatments furnished to customers.
GOE: 09.05.01 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

334.677-010 RUBBER (personal ser.) **alternate titles: bath attendant**

Massages and bathes customers in thermal bathhouse: Kneads, slaps, strokes, and rubs flesh with stiff-bristled brush or brush made of leaves and twigs to increase circulation, relax muscles, and relieve fatigue. Assists customer into tub or onto bench, slab, or table in dry heat or steam room. Adjusts thermostat that regulates flow of heat and turns steam valve or sprinkles water on heated rocks to control temperature and humidity. Splashes soapy water on customer's body, scrubs body with brush, mitt, or sponge to clean skin and remove dead cuticle, and splashes clear water on body to rinse soap from skin. May dry customer after bath, using towel. May supply customer with drinking water or wrap client's head in cold towel during bath [HOT-ROOM ATTENDANT (personal ser.)]. May massage customer after bath, using alcohol and oil, to soothe skin [COOLING-ROOM ATTENDANT (personal ser.)]. May bind leaves and twigs to form brush used in rubdown. May be designated according to type of massage given as Finnish Rubber (personal ser.); Russian Rubber (personal ser.); Turkish Rubber (personal ser.).
GOE: 09.05.01 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

335 BATH ATTENDANTS

This group includes occupations concerned with assisting clients of public bath houses to take Russian, Sauna, Turkish, electric cabinet, sweatbox, or steam baths; providing and stocking towels; and checking money and valuables.

335.677-010 COOLING-ROOM ATTENDANT (personal ser.) **alternate titles: alcohol rubber; slumber-room attendant**

Attends to comfort and needs of thermal bath customers cooling off and resting after bath and massage: Assigns cot to customer. Rubs customer's body with alcohol and oil to soothe skin. Covers customer with sheet. Times length of rest period. Procures beverage, food, or other items on request. May arrange for valet services. May change bedding on cots. May shine shoes [SHOE SHINER (personal ser.)]. May sweep and mop floors and dust furniture [CLEANER, COMMERCIAL OR INSTITUTIONAL (any industry)].
GOE: 09.05.01 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

335.677-014 HOT-ROOM ATTENDANT (personal ser.) **alternate titles: electric-bath attendant; porter, bath; public-bath attendant; sweat-box attendant; tub attendant**

Serves patrons in dry-heat cabinet or room or steamroom of athletic, bathing, or other establishment: Spreads sheet or towel over seating facility in cabinet or rooms and seats patrons. Supplies drinking water and renders other services requested, such as wrapping cool towels about patron's head, spraying body with water, or timing length of bath. Gives shower baths and furnishes towel or dries patron. Collects soiled linen and cleans bathing area and facilities, such as tubs and showers. May turn valves and switches to adjust heating equipment, regulating amount of steam or temperature. May pour water over heated rocks to prepare steamroom. May be designated according to bath facility served as Dry-Heat-Cabinet Attendant (personal ser.); Dry-Heat-Room Attendant (personal ser.); Shower Attendant (personal ser.); Steam-Room Attendant (personal ser.).
GOE: 09.05.01 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

338 EMBALMERS AND RELATED OCCUPATIONS

This group includes occupations concerned with preparing corpses for interment.

338.371-010 EMBALMER APPRENTICE (personal ser.)

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 02.04.02 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 77

338.371-014 EMBALMER (personal ser.)

Prepares bodies for interment in conformity with legal requirements: Washes and dries body, using germicidal soap and towels or hot air drier. Inserts convex celluloid or cotton between eyeball and eyelid to prevent slipping and sinking of eyelid. Presses diaphragm to evacuate air from lungs. May join lips, using needle and thread or wire. Packs body orifices with cotton saturated with embalming fluid to prevent escape of gases or waste matter. Makes incision in arm or thigh, using scalpel, inserts pump tubes into artery, and starts pump that drains blood from circulatory system and replaces blood with embalming fluid. Incises stomach and abdominal walls and probes internal organs, such as bladder and liver, using trocar to withdraw blood and waste matter from organs. Attaches trocar to pump-tube, starts pump, and repeats probing to force embalming fluid into organs. Closes incisions, using needle and suture. Reshapes or reconstructs disfigured or maimed bodies, using materials, such as clay, cotton, plaster of paris, and wax. Applies cosmetics to impart lifelike appearance. Dresses body and places body in casket. May arrange funeral details, such as type of casket or burial dress and place of interment [DIRECTOR, FUNERAL (personal ser.)]. May maintain records, such as itemized list of clothing or valuables delivered with body and names of persons embalmed.
GOE: 02.04.02 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 77

339 BARBERING, COSMETOLOGY, AND RELATED SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with rendering beauty and related treatments to individuals.

339.137-010 MANAGER, HEALTH CLUB (personal ser.)

Supervises and coordinates activities of workers engaged in planning, selling, and instructing fitness plans for clients of health club: Assigns and adjusts work schedules to meet customer demand. Interviews, hires, and trains new employees. Observes workers in performance of duties and gives remedial training to correct worker deficiencies and ensure courteous service to patrons. Plans and sells figure-controlling programs to prospective patrons. Assists subordinates in interviewing, measuring, and evaluating patrons' physical condition to determine appropriate fitness program. Prepares contract forms, obtains signatures, collects deposits, and issues membership cards to patrons accepting plans. Demonstrates operation and explains purpose of equipment, such as treadmill exerciser and stationary bicycle, and instructs patrons in their use. Monitors patron's exercise program to ensure adherence to specified techniques.
GOE: 11.11.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

339.361-010 MORTUARY BEAUTICIAN (personal ser.) **alternate titles: embalmer assistant; funeral-home attendant**

Prepares embalmed bodies for interment: Manicures nails, using files and nail polish, and performs other grooming tasks, such as arching and plucking eyebrows and removing facial hair, using depilatory cream and tweezers. Shampoos, waves, presses, curls, brushes, and combs hair, and applies cosmetics on face to restore natural appearance, following photograph of deceased, or verbal or written description obtained from family. Dresses and arranges body in casket. May select casket or burial dress, arrange floral displays, and prepare obituary notices. May record personal effects delivered with body and information about deceased. May wash and dry bodies, using germicidal soap and towels or hot air drier. May reshape or reconstruct damaged or disfigured areas of body, using such materials as cotton or foam rubber.
GOE: 01.06.02 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

339.371-010 ELECTROLOGIST (personal ser.) **alternate titles: electric-needle specialist; electrolysis operator; hypertrichologist**

Removes hair from skin of patron by electrolysis: Positions sterile bulbous or round-tipped needles into holders (electrodes) of galvanic or short wave electrical equipment. Places secondary electrode in hand or immerses fingers or hand of patron in water-filled electrode cup to complete circuit and stabilize amount of electricity when equipment is operating. Swabs skin area with antiseptic solution to sterilize it. Inserts needle or needles into hair follicle and into organ beneath hair root (papilla). Presses switch and adjusts timing and rheostat controls of equipment that regulate amount of electricity flowing through needle or needles to decompose cells of papilla. Removes needle or needles, and pulls hair from follicle, using tweezers.
GOE: 09.05.01 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

339.371-014 SCALP-TREATMENT OPERATOR (personal ser.) **alternate titles: hair-and-scalp specialist; scalp specialist; trichologist**

Gives hair and scalp conditioning treatments for hygienic or remedial purposes: Massages, shampoos, and steams hair and scalp of patron to clean and remove excess oil, using liquid soap, rinses, and hot towels. Applies medication to and massages scalp to increase blood circulation, stimulate glandular activity, and promote growth of hair, using hands and fingers or vibrating equipment. Administers other remedial treatments to relieve such conditions as dandruff or itching scalp, using such therapeutic equipment as infrared or ultraviolet lamps. Advises patrons with chronic or potentially contagious scalp conditions to seek medical treatment. May maintain treatment records.
GOE: 09.02.01 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

339.571-010 TATTOO ARTIST (personal ser.) **alternate titles: jagger; tattooer; tattooist**

Pricks skin of patron, using needled electric tool, that inserts indelible nontoxic pigment into skin to form decorative or ornamental design: Shaves area to receive tattoo and washes it, using germicidal soap. Presses charcoal-coated stencil, draws design, or traces pattern of design onto skin of patron.

to mark outline of design. Dips needles of tool into colored pigment solution and presses needles into skin to insert indelible pigment into skin following outline of design. Applies sterile dressing to area. Sterilizes needles in steam-heated cabinet (sterilizer). Mixes nontoxic colored pigments according to formula. Adjusts and repairs needled electric tool, using handtools, such as screwdrivers and pliers. May draw original designs on paper, trace designs onto acetate sheet, and cut out design to form pattern or stencil, using stylus and knife.
GOE: 01.06.02 STRENGTH: S GED: R3 M2 L2 SVP: 5 DLU: 77

339.687-010 SUPPLY CLERK (personal ser.) **alternate titles: dispensary attendant; storekeeper**

Dispenses supplies in beauty parlor or barber shop: Counts, sorts, issues, and collects articles, such as towels, drapes, combs, brushes, curlers, and nets. Washes combs and brushes in antiseptic soap solution and places them in sterilizing cabinet. Dilutes concentrated shampoo, rinses, and waving solutions with water according to instructions. Dissolves cake soap in water to make shampoo. Assembles materials, solutions, and equipment specified for individual treatment, such as facial, permanent wave, and manicure. Maintains perpetual supply inventory and lists items needed to replace stock. Sweeps floor and tidies rooms.
GOE: 05.09.01 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

34 AMUSEMENT AND RECREATION SERVICE OCCUPATIONS

This division includes occupations concerned with amusement and recreation services.

340 ATTENDANTS, BOWLING ALLEY AND BILLIARD PARLOR

This group includes occupations concerned with assigning alleys and billiard tables to patrons, collecting fees for games played, setting pins, and preparing billiard tables for playing.

340.367-010 DESK CLERK, BOWLING FLOOR (amuse. & rec.)

Assigns bowling alleys to patrons and collects fees: Reserves alleys for bowling league or individuals. Issues scoresheets and alley numbers to patrons. Inspects alleys to ensure that bowling equipment is available. Observes players to determine misuse of alleys or other equipment. Records number of games played and receipts collected. Rents bowling shoes to patrons.
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

340.477-010 RACKER (amuse. & rec.) **alternate titles: ball racker; poolroom attendant; table attendant**

Positions pool balls on table, using triangular rack. Performs such services as supplying chalk to players, cleaning table with brush, and placing cues in cue rack after game. Collects fees from players or writes fees on slips for collection by manager or cashier. May inspect cue tips and replace them, using glue and knife.
GOE: 09.05.05 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

341 ATTENDANTS, GOLF COURSE, TENNIS COURT, SKATING RINK, AND RELATED FACILITIES

This group includes occupations concerned with starting players on golf courses, assigning tennis courts, keeping records of players and receiving fees, giving skating instruction, and caddying for golfers. Includes caddies and workers who issue athletic equipment or skates, etc.

341.137-010 CADDIE SUPERVISOR (amuse. & rec.)

Supervises CADDIES (amuse. & rec.) and assigns them to players. May hire, train, and discharge CADDIES (amuse. & rec.). May admit players to course and start their play in order.
GOE: 09.05.06 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

341.367-010 RECREATION-FACILITY ATTENDANT (amuse. & rec.)

Schedules use of recreation facilities, such as golf courses, tennis courts, and softball and sandlot diamonds, in accordance with private club or public park rules: Makes reservations for use of facilities by players. Settles disputes between groups or individual players regarding use of facilities. Coordinates use of facilities to prevent players from interfering with one another. May collect fees from players. May inform players of rules concerning dress, conduct, or equipment and enforce rules or eject unruly player or unauthorized persons as necessary. May sell or rent golf and tennis balls, racquets, golf clubs, and other equipment. May render emergency first aid to injured or stricken players. May patrol facilities to detect damage to facilities and report damages to appropriate authority. May be designated according to facility tended as Golf-Course Starter (amuse. & rec.); Tennis-Court Attendant (amuse. & rec.).
GOE: 07.04.03 STRENGTH: L GED: R4 M2 L3 SVP: 3 DLU: 81

341.464-010 SKATE-SHOP ATTENDANT (amuse. & rec.)

Repairs, rents, or sells ice skates and equipment at ice-skating rink: Removes skate blade from shoe, places it in guide frame, and sharpens blade on grinding wheel. Drills holes in shoe, using electric drill, and bolts blade to shoe, using wrench. Cleans skates with cloth or buffing tool and places them on shelf according to size. Issues skates to patrons and collects ticket or money for rental. Sells merchandise, such as skates, skate guards, and skating apparel.
GOE: 09.04.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

341.665-010 SKI-TOW OPERATOR (amuse. & rec.) **alternate titles: ski-lift operator**

Tends gasoline, diesel, or electric lift to transport skiers up slope or mountainside, and collects fares: Pulls levers to start, stop, and adjust speed of lifts, such as rope tow, chair lift, T-bar, or J-bar. Collects or punches ticket for passengers and assists them onto and from lift. May repair and maintain motor and lift equipment.
GOE: 09.05.08 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

341.677-010 CADDIE (amuse. & rec.) **alternate titles: golf caddie**

Carries golf bags or pushes or pulls cart that holds golf bags around golf course for players, handing clubs to players as requested: Advises players, as requested, on selection of proper club for stroke or concerning peculiarities of course. Locates driven balls and holds marker out of cup while players putt.
GOE: 09.05.06 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

341.683-010 GOLF-RANGE ATTENDANT (amuse. & rec.)

Performs combination of following duties at golf driving range: Picks up golf balls by hand or drives vehicle equipped with trailer that automatically picks up balls as vehicle moves over fairway. Starts revolving tumbler filled with soapy water and immerses golf balls to remove dirt, grass stain, and club marks. Removes and rinses washed balls. Applies liquid cleaner to head and shank of golf clubs and buffs with steel wool. Replaces golf balls and clubs in racks for use by driving range patrons. May perform minor maintenance on benches, using handtools.
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

342 AMUSEMENT DEVICE AND CONCESSION ATTENDANTS

This group includes occupations concerned with operating games of chance or skill or other types of amusement equipment, such as the ferris wheel, roller coaster, and merry-go-round; and running fairs, carnivals, circuses, or amusement parks. Includes spielers or barkers who solicit patronage.

342.137-010 SUPERVISOR, RIDES (amuse. & rec.)

Supervises and coordinates activities of workers engaged in operating or tending rides in amusement parks, carnivals or similar recreational establishments. Inspects ride equipment for operating condition and safety. Trains workers and performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.10.02 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

342.357-010 WEIGHT GUESSER (amuse. & rec.)

Guesses weight of patrons at amusement park, carnival, or similar place of entertainment: Attracts attention of passing public, vociferously proclaiming game and skill. Scrutinizes patron's physique and makes oral estimate of weight. Invites patron to stand on scale or to sit in seat attached to industrial scale, usually forfeiting prize if weight guessed is not correct within 2 or 3 pounds. May demonstrate personal skill in guessing patron's age, occupation, home state, or other related pertinent data.
GOE: 01.07.03 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

342.657-010 BARKER (amuse. & rec.) **alternate titles: carney; spieler**

Attempts to attract patrons to entertainment by exhorting passing public, describing attractions of show and emphasizing variety, novelty, beauty, or some other feature believed to incite listeners to attend entertainment. May conduct brief free show, introducing performers and describing acts to be given at feature performance.
GOE: 01.07.02 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

342.657-014 GAME ATTENDANT (amuse. & rec.) **alternate titles: game operator**

Induces customers to participate in games at concession booths in parks, carnivals, stadiums, or similar amusement places: Describes types of games available to passing public to attract customers. Supplies customers with game equipment, such as toss rings or balls, distributes prizes to customers who win games, and collects fees for services. Cleans and repairs booth and keeps equipment in serviceable condition. May be designated according to type of game operated as Shooting Gallery Operator (amuse. & rec.).
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 78

342.663-010 RIDE OPERATOR (amuse. & rec.) **alternate titles: amusement-equipment operator**

Operates or informs patrons how to operate mechanical riding devices furnished by amusement parks, carnivals, or similar places of entertainment: Informs patron to fasten belt, bar, or other safety device. Moves controls to start and stop equipment, such as roller coaster, merry-go-round, and ferris wheel. Gives directions to patrons, usually over microphone, regarding safety and operation of such rides as midget autos and speedboats. Turns on current to permit operation of ride by patron and turns off current after allotted time. Drives vehicles, such as trains, on which persons ride, guiding and controlling their

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speed. Adds to or removes equipment, according to amount of patronage. Oils, refuels, adjusts, and repairs device. Tests equipment daily before opening ride to patrons. May notify patron of expiration of period for which fee was paid to use device. May observe patrons boarding vehicle to ensure they are safely seated without being overcrowded and safety belts or bars are secure. May collect tickets or cash fares from patrons. May space rides operated in cars or sections to avoid danger of collisions. May be designated according to equipment operated as Auto-Speedway Operator (amuse. & rec.); Ferris-Wheel Operator (amuse. & rec.); Flume-Ride Operator (amuse. & rec.); Merry-Go-Round Operator (amuse. & rec.); Monorail Operator (amuse. & rec.); Railroad Operator (amuse. & rec.); Roller-Coaster Operator (amuse. & rec.); Speedboat Operator (amuse. & rec.); Swing-Ride Operator (amuse. & rec.); Train Operator (amuse. & rec.); Whip Operator (amuse. & rec.).
GOE: 05.10.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 79

342.665-010 FUN-HOUSE OPERATOR (amuse. & rec.) alternate titles: walk-through operator
Tends one or several pieces of automatic equipment designed to amuse, excite, or mystify patrons of fun house in amusement park: Switches on device that automatically blows blasts of air under women's skirts. Starts revolving turntables, conveyor belt, drum or similar device. Ejects rowdy persons from establishment. Observes equipment for efficient operation and repairs minor breakdowns in equipment.
GOE: 05.12.15 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

342.667-010 WHARF ATTENDANT (amuse. & rec.) alternate titles: boat-ride operator; dock attendant
Launches and moors boats on lake or similar amusement place and shows patrons how to guide crafts, such as rowboats, canoes, and electric or gasoline motorboats: Assists patrons stepping in or out of boats. Takes tickets from patrons. Demonstrates how to row, paddle, or guide boats. Tows disabled boats to dock for repair. Changes batteries of electric motorboats and refuels gasoline motors. Cleans, paints, varnishes, and makes minor repairs on motors, using handtools, to maintain boats in good condition. When working in boat-tank facility of amusement park, is designated Boat-Tank Attendant (amuse. & rec.). See BOAT-RENTAL CLERK (amuse. & rec.) for rental of canoes, motorboats, rowboats, sailboats, and fishing equipment.
GOE: 09.04.02 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

342.667-014 ATTENDANT, ARCADE (amuse. & rec.)
Assists patrons of amusement facility, and performs minor repairs on game machines: Explains operation of game machines to patrons and exchanges coins for paper currency. Listens to patron complaints regarding malfunction of machines. Removes coin accepter mechanism of machines, using key, and observes mechanism to detect causes of malfunctions, such as bent coins, slugs, or foreign material. Removes obstructions, repositions mechanism, inserts coins, and observes machine operation to determine whether malfunctions are still present. Places out-of-order signs on defective machines and returns money lost in defective machines to patrons. Notifies maintenance department of defective machines, and records times of machine malfunctions and repairs to maintain required records. Observes conduct of patrons in facility to ensure orderliness, and asks disruptive patrons to leave.
GOE: 09.04.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

342.677-010 RIDE ATTENDANT (amuse. & rec.)
Directs patrons of amusement park in getting on and off riding device: Erects barrier in front of ride, admitting only as many persons to loading platform as can be seated on ride. Keeps order among patrons waiting to ride device. Fastens patrons' safety belts or bars to prevent injuries during ride. Assists children and elderly patrons from ride. Directs patrons from unloading platform to park grounds. May space rides operated in cars or sections to avoid danger of collisions. May collect tickets or cash fares. May clean and polish equipment and perform other minor maintenance work, such as replacing light bulbs.
GOE: 09.05.08 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

343 GAMBLING HALL ATTENDANTS

This group includes occupations concerned with running games of chance in gambling establishments. Includes dealing cards or providing other gambling equipment.

343.137-010 MANAGER, CARDROOM (amuse. & rec.)
Supervises and coordinates activities of GAMBLING DEALERS (amuse. & rec.); CARD PLAYERS (amuse. & rec.); BOARD ATTENDANTS (amuse. & rec.); and other workers engaged in providing gambling activities in a gambling establishment: Prepares work schedule for gambling establishment workers and assigns work stations. Supervises overall operation to ensure that employees render prompt and courteous service to patrons. Resolves customer-service complaints and settles matters requiring explanation and interpretation of house rules. Reviews operational expenses and budget estimates. Trains new workers and evaluates their performance.
GOE: 11.11.02 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

343.137-014 SUPERVISOR, CARDROOM (amuse. & rec.)
Supervises and coordinates activities of CARDROOM ATTENDANTS (amuse. & rec.) I engaged in selling gambling chips, collecting house fees, and serving food and beverages to patrons of cardroom: Assigns workers to serve patrons at designated group of card tables. Examines collection reports, subm
ted for approval by workers, for accuracy and timeliness. Explains and int
prets operating rules of house to patrons. Circulates among tables and observ
operations to ensure player harmony and adjust service complaints. Notif
BOARD ATTENDANT (amuse. & rec.) of vacancies at tables so that waiti
patrons may play.
GOE: 09.04.02 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

**343.367-010 CARD PLAYER (amuse. & rec.) alternate titles: propositi
player; public-relations player; shill; stakes player**
Participates in card game, usually poker, for gambling establishment to p
vide minimum complement of players at table. Relinquishes seat on arrival
patron desiring to play cards.
GOE: 09.04.02 STRENGTH: S GED: R3 M2 L2 SVP: 4 DLU: 77

343.367-014 GAMBLING MONITOR (amuse. & rec.)
Observes patrons and employees participating in gambling activities to det
infractions of house rules: Watches participants in games such as dice or ca
to detect cheating, identify rule violators, and observe persons designated
superior. Speaks or signals to supervising personnel using hand, telephone,
voice to identify and supply information about suspected violators. May exa
ine dice periodically to check for damage or substitution. May calcul
winnings to verify payment made by dealer.
GOE: 04.02.03 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

343.464-010 GAMBLING DEALER (amuse. & rec.)
Conducts gambling table, such as dice, roulette, or cards, in gambling est
lishment: Exchanges paper currency for playing chips or coin money. Ensu
that wagers are placed before cards are dealt, roulette wheel is spun, or d
are tossed. Announces winning number or color to players. Computes paya
odds to pay winning bets. Pays winning bets and collects losing bets. May
designated according to specialty as Baccarat Dealer (amuse. & rec.); D
Dealer (amuse. & rec.); Roulette Dealer (amuse. & rec.); Twenty-One Dea
(amuse. & rec.).
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 86

**343.467-010 CARDROOM ATTENDANT I (amuse. & rec.) alternate
tles: chip**
Collects house fees from players and sells gambling chips, food, bevera
and tobacco in cardroom: Collects specified house fees periodically from c
players. Prepares collection report for submission to supervisor. Sells gamb
chips, food, beverages and tobacco to accommodate players upon request. M
distribute new card decks to players as required. May explain and interpret
erating rules of house to patrons requesting information.
GOE: 09.04.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

343.467-014 FLOOR ATTENDANT (amuse. & rec.)
Verifies winning bingo cards to award prize or pay prize money to pla
holding winning cards: Collects money (fee) for participation in game and
sues game cards to players. Listens for shouts or looks for waving arms f
players who have winning cards. Compares numbers on card with num
called and displayed on board to verify winning cards. Gives prize or p
money to players holding winning cards.
GOE: 09.04.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

343.467-022 KENO WRITER (amuse. & rec.)
Conducts keno game in gambling establishment: Receives, verifies,
records cash wagers of customers. Starts gaming equipment that randomly
lects numbered balls. Announces number of each ball selected until numbe
balls specified for each game is selected. Scans winning tickets presented
customers, calculates amount of winnings, and pays customers, utilizing kno
edge of rules and payoffs of game.
GOE: 09.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 86

343.577-010 CARDROOM ATTENDANT II (amuse. & rec.)
Seats cardroom patrons: Takes name of patron requesting seat at table
adds name, with chalk, to waiting list on board. Pages customer over lo
speaker when notified by SUPERVISOR, CARDROOM (amuse. & rec.)
seat is available.
GOE: 09.05.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

**343.687-010 PLASTIC-CARD GRADER, CARDROOM (amuse. &
alternate titles: card grader**
Examines plastic playing cards for reuse by patrons of public cardroom
spects cards for defects, such as scratches, cuts, and discoloration. Replaces
fective cards with those matching others of deck in color, size, and pat
Feels each card of deck for uniform thickness. Counts, sorts, and repack
cards in box. Grades decks according to condition and approximate usage.
GOE: 06.03.02 STRENGTH: S GED: R2 M1 L2 SVP: 4 DLU: 77

344 USHERS

This group includes occupations concerned with taking tickets, distribu
programs, and escorting patrons to seats in public places.

344.137-010 USHER, HEAD (amuse. & rec.)
Supervises and coordinates activities of USHERS (amuse. & rec.) at e
tainment events and directs patrons to area of seat location: Directs USH
(amuse. & rec.) in job duties and assigns to work stations. Directs patron

area of seat location according to information on ticket stubs. Resolves complaints of patrons. Coordinates activities in emergencies such as fights or fires. May hire and discharge USHERS (amuse. & rec.). May keep records of workers' time.
GOE: 09.05.08 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

344.667-010 TICKET TAKER (amuse. & rec.)
Collects admission tickets and passes from patrons at entertainment events: Examines ticket or pass to verify authenticity, using criteria such as color and date issued. Refuses admitance to patrons without ticket or pass, or who are undesirable for reasons, such as intoxication or improper attire. May direct patrons to their seats. May distribute door checks to patrons temporarily leaving establishment. May count and record number of tickets collected. May issue and collect completed release forms for hazardous events, and photograph patron with release form for permanent records file. May be designated Gate Attendant (amuse. & rec.) or Turnstile Attendant (amuse. & rec.) when collecting tickets at open-air event.
GOE: 09.05.08 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 80

344.677-010 PRESS-BOX CUSTODIAN (amuse. & rec.)
Verifies credentials of patrons desiring entrance into press-box and permits only authorized persons to enter. Runs errands for patrons of press-box, performing such duties as obtaining refreshments, carrying news releases, and placing wagers.
GOE: 09.05.04 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

344.677-014 USHER (amuse. & rec.)
Assists patrons at entertainment events to find seats, search for lost articles, and locate facilities, such as restrooms and telephones. Distributes programs to patrons. Assists other workers to change advertising display.
GOE: 09.05.08 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 81

346 WARDROBE AND DRESSING-ROOM ATTENDANTS

This group includes occupations concerned with caring for costumes of entertainers, distributing them, keeping records of those issued and returned, and assisting entertainers in dressing.

346.261-010 COSTUMER (motion picture; radio-tv broad.)
Selects and fits costumes for cast members according to style of historical period and characters to be portrayed: Analyzes script or reviews analysis of SUPERVISOR, COSTUMING (motion picture; radio-tv broad.) to determine locale of story and number of costumes required for each character. Studies books, pictures, and examples of costumes to determine styles worn during specified period in history. Inventories stock to determine types and condition of costuming available and selects costumes based on script analysis and studies. Examines costume on cast member and sketches or writes notes designating alterations. Makes minor alterations and repairs to costume by hand, or using sewing machine. Sends costume to tailor for major alterations or repairs. May design and construct unusual costumes, applying creative ingenuity. May press and spot-clean costumes, using electric iron and cleaning fluid. May purchase or rent costumes and other wardrobe accessories.
GOE: 01.06.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

346.361-010 WARDROBE SUPERVISOR (amuse. & rec.)
Attends to costumes of members of cast of theatrical production: Examines costumes and cleans and mends them. Presses costumes, using electric iron. Refits costumes as necessary. Assists cast to don completed costumes, or assigns DRESSERS (amuse. & rec.) to assist specific cast members. Arranges costumes, or assigns DRESSERS (amuse. & rec.) to arrange costumes of cast on dress racks in sequence to appearance on stage to facilitate quick changes. Packs costumes for cast when accompanying show on tour.
GOE: 09.05.07 STRENGTH: L GED: R3 M2 L3 SVP: 7 DLU: 77

346.374-010 COSTUMER ASSISTANT (motion picture; radio-tv broad.) alternate titles: custodian, wardrobe; wardrobe draper
Assists COSTUMER (motion picture; radio-tv broad.) 346.261-010 in selecting costumes for and fitting them to performers: Distributes costumes and wardrobe accessories to principals, extras, and bit players. Alters, repairs, presses, and spot-cleans costumes by hand or using sewing machine, electric iron, and cleaning fluid. Keeps records of costumes issued and returned.
GOE: 09.05.07 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

346.667-010 JOCKEY-ROOM CUSTODIAN (amuse. & rec.)
Ensures that JOCKEYS (amuse. & rec.) scheduled to ride are present in jockey room at racetrack and that their dress and riding equipment meet track specifications: Notifies JOCKEYS (amuse. & rec.) when to dress. Inspects JOCKEYS (amuse. & rec.) for specified colors (silks), saddle numbers, and riding equipment. Informs STEWARD, RACETRACK (amuse. & rec.) of JOCKEYS (amuse. & rec.) not reporting to prepare for race. Maintains order in jockey room. Examines lead pads to determine that they meet track specifications. Gives directions to workers to clean jockey room.
GOE: 12.01.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

346.674-010 DRESSER (amuse. & rec.)
Aids entertainer to dress and attends to clothing and costumes: Arranges costumes in order of use. Unpacks clothes and costumes and places them for convenient use. Cleans spots from apparel. Presses costumes. Mends ripped seams or makes other minor repairs. May arrange for cleaning, pressing or laundering of costumes.
GOE: 09.05.06 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

346.677-010 JOCKEY VALET (amuse. & rec.)
Attends to JOCKEY (amuse. & rec.) at racetrack performing variety of services: Saddles horse and inserts lead pads in saddle pockets to meet weight specifications for race. Places number on saddle to correspond with horse's entry number in race. Reads color assignment chart and obtains specific colors of silks from color room corresponding to stable colors. Assists JOCKEY (amuse. & rec.) to dress for race. Unsaddles horse after race and returns riding equipment to storage area. Cleans saddles, washes silks, and shines boots for JOCKEY (amuse. & rec.).
GOE: 09.05.06 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

346.677-014 RIDING-SILKS CUSTODIAN (amuse. & rec.) alternate titles: colors custodian
Issues designated riding silks (colors) and identifying arm and saddle numbers to JOCKEYS (amuse. & rec.) before each race, according to colors and numbers printed on program. Collects and stores silks and numbers after each race. Issues jackets to LEAD PONY RIDERS (amuse. & rec.). Sends out soiled silks and jackets for cleaning.
GOE: 09.05.07 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

346.677-018 SECOND (amuse. & rec.)
Serves prizefighter between rounds by giving drinking water, sponging with water, and fanning with towel. Applies medications to minor injuries, such as cuts and bruises.
GOE: 09.05.01 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

349 AMUSEMENT AND RECREATION SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with amusement and recreation services.

349.224-010 ANIMAL-RIDE MANAGER (amuse. & rec.)
Manages stable of animals, trains animals for riding, and supervises workers engaged in handling and attending animals, selling rides, and assisting patrons to ride animals: Purchases animals, feed and supplies. Examines animals for injury or symptoms of illness and arranges for veterinarian services when required. Trains animals for riding, performing tasks, such as teaching animals to walk, trot or gallop. Inspects facilities for cleanliness. Supervises and coordinates workers engaged in feeding, watering, grooming, harnessing and training animals, selling rides and assisting patrons to mount and ride animals.
GOE: 03.03.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

349.247-010 DIVER (amuse. & rec.)
Feeds, describes, and identifies fish enclosed in aquarium or community fish tank for public amusement: Dons diving suit and helmet and drops to floor of tank to feed fish on scheduled show periods. Circulates among fish and delivers running commentary over sound system to amuse audience. Identifies for audience species of fish being fed, such as bat rays, sawfish, and sharks, and describes briefly life history of individual specimens, based on prepared text. Cleans bottom of tank, using suction hose, and clears algae from windows inside tank, using scrubbing brushes. Observes and reports diseased, injured, or dead fish. Gives routine medical treatment to fish as directed.
GOE: 01.07.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

349.367-010 KENNEL MANAGER, DOG TRACK (amuse. & rec.)
Verifies credentials and starting position of dogs in races and guards dogs against injury and illegal acts: Verifies credentials of each dog entered in race, comparing color, name, and sex of dog and name of owner with information on racing form. Ensures that dogs are admitted to assigned stalls, notifying other workers to round up designated dogs in advance of each race. Guards dogs to prevent persons from injuring them or attempting illegally to influence dog's performance. Notifies owner or veterinary personnel in cases of injury or suspected illness. Notifies track officials of irregularities as required by racing regulations. May clean racing stalls after each race, using disinfectant solution.
GOE: 12.01.02 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 77

349.367-014 RECEIVING-BARN CUSTODIAN (amuse. & rec.)
Verifies credentials of persons at receiving barn of racetrack and notifies STABLE ATTENDANTS (any industry) to bring horses scheduled to race, to barn for examination and inspection: Compares credentials of persons requesting admittance with list of names authorized. Informs STABLE ATTENDANTS (any industry) to bring racehorses to receiving barn for examination and inspection by VETERINARIAN (medical ser.), HOOF AND SHOE INSPECTOR (amuse. & rec.), and IDENTIFIER, HORSE (amuse. & rec.). Notifies LEAD PONY RIDERS (amuse. & rec.) to lead racehorses to paddock for saddling. Informs racing officials of horses not meeting racing specifications or not present for examination and inspection. Issues instructions to workers to clean stable and barn area.
GOE: 09.05.04 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

349.477-010 JINRIKISHA DRIVER (amuse. & rec.) alternate titles: rickshaw driver
Conveys passengers to destinations, using three-wheeled vehicle: Pumps pedals and turns handlebars to propel and steer vehicle along roadway to attract

and convey passengers for novelty rides. Assists passengers into carriage of vehicle and asks their destination. Records time or odometer reading at start of trip. Conveys passengers to specified destination. Computes fare according to miles traveled or time expended and collects payment.
GOE: 01.07.03 STRENGTH: M GED: R2 M2 L2 SVP: 1 DLU: 86

349.664-010 AMUSEMENT PARK WORKER (amuse. & rec.)
Performs any combination of following duties in amusement park: Escorts patrons on tours of park's points of interest. Takes pictures of patrons to impart pictures onto T-shirts, using camera, automatic printing equipment, and heating press. Maintains and distributes uniforms worn by park employees. Cleans park grounds, office facilities, and rest room areas, using broom, dust pan, or vacuum cleaner. Distributes literature, such as maps, show schedules, and pass information, to acquaint visitors with park facilities. Monitors activities of children using park playground area to ensure safe use of equipment. Directs patrons to seats for park attractions and opens doors to assist patrons' entry and exit from attractions. Receives cash for tickets or items sold to patrons and records sales, using cash register.
GOE: 09.01.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 86

349.665-010 SCOREBOARD OPERATOR (amuse. & rec.)
Watches players and officials at athletic event and posts or moves indicators and buttons to record progress of game on scoreboard to inform spectators. Confers, by telephone, with ANNOUNCER (amuse. & rec.) or sideline officials to verify observation of plays.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 2 DLU: 77

349.667-010 HOST/HOSTESS, DANCE HALL (amuse. & rec.)
Participates, as social partner, in dancing, dining, drinking, conversation with patrons to increase business of public dancehall. Collects tickets or fees from patrons for time spent in their company. Counts number of tickets collected from patrons and submits tickets to management for pay computation at end of shift.
GOE: 09.01.01 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

349.667-014 HOST/HOSTESS, HEAD (amuse. & rec.)
Introduces unaccompanied persons at dancehall to HOSTS/HOSTESSES, DANCE HALL (amuse. & rec.), explaining procedure of engaging social partner. Inspects dress of HOSTS/HOSTESSES, DANCE HALL (amuse. & rec.) to ensure that they present clean and pleasing personal appearance. Attempts to distribute patrons equally among HOSTS/HOSTESSES, DANCE HALL (amuse. & rec.).
GOE: 09.01.01 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

349.673-010 DRIVE-IN THEATER ATTENDANT (amuse. & rec.) alternate titles: field attendant
Performs any combination of following duties in rendering services to patrons of drive-in theaters: Greets patrons desiring to attend theater. Collects admission fee and purchases ticket for patron from TICKET SELLER (clerical). Parks car or directs patron to parking space, indicating available space with flashlight. Patrols theater on foot or bicycle to prevent disorderly conduct, rowdiness, or to detect other infractions of rules. Watches over children in playground during intermission. Serves patrons at refreshment stand during intermission. May attach loudspeaker to automobile door and turn controls to adjust volume.
GOE: 09.05.04 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

349.674-010 ANIMAL-RIDE ATTENDANT (amuse. & rec.)
Assists patrons to mount and ride animals, collects payment for ride, and attends animals in amusement facility: Selects animal to be ridden on basis of size and age of patron. Accepts payment for ride. Assists patron to mount and ride animal, performing tasks, such as lifting child into saddle, explaining safe riding techniques, leading animal, and observing patron to detect uneasiness or handling difficulty. Attends animals, performing tasks, such as harnessing, saddling, feeding, watering, grooming, observing symptoms of illness, and cleaning stable. May be designated according to type of animal ridden as Pony-Ride Attendant (amuse. & rec.).
GOE: 03.03.02 STRENGTH: H GED: R3 M1 L2 SVP: 2 DLU: 77

349.677-010 CABANA ATTENDANT (amuse. & rec.)
Performs combination of following tasks to serve patrons of private beach, club, or swimming pool having individual cabanas (bathhouses): Issues or rents swimsuits, bathing caps, soap, towels, umbrellas, beach chairs, and similar items. Obtains and serves refreshments to guests as requested. Collects soiled towels and rented swimming attire for laundering. Folds and stores chairs, blankets, and umbrellas at sundown. Picks up rubbish along beach or near pool. Participates in draining, cleaning, and refilling pool and changing pool filters.
GOE: 09.04.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

349.677-014 COACH DRIVER (business ser.)
Drives horse-drawn vehicle to provide background or special effects for activities such as advertising promotions, political campaigns, or wedding parties; or to transport passengers for purposes such as sightseeing or hay rides. Dons costume for occasion. May feed, water, harness and attend horses. May clean or polish vehicle such as carriage, wagon or cart.
GOE: 01.07.03 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

349.677-018 CHILDREN'S ATTENDANT (amuse. & rec.)
Monitors behavior of unaccompanied children in children's section of theater to maintain order: Escorts children who are unaccompanied by adult between theater entrance and children's section when children enter or leave theater. Maintains order among children and searches for lost articles. Notes when each child enters section and reminds child to go home after witnessing complete performance.
GOE: 09.05.08 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 86

349.680-010 TICKET-DISPENSER CHANGER (amuse. & rec.)
Changes code slugs (printing dies) and installs rolls of ticket tape in ticket dispensing machine before each race at racetrack: Unlocks machine with key and turns knob to reset number register to zero. Changes code slug so that different symbols are printed on tickets. Replaces depleted roll of ticket tape, threading end of tape through feed roller to type roller. Presses key of machine to obtain sample ticket. Examines ticket to ascertain that machine is printing correctly and adjusts machine to correct defects. Relocks machine.
GOE: 05.12.15 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

35 MISCELLANEOUS PERSONAL SERVICE OCCUPATIONS

This division includes occupations concerned with those duties performed by stewards and hostesses, not elsewhere classified, and attendants, guides, and the like.

350 SHIP STEWARDS/STEWARDESSES AND RELATED OCCUPATIONS

This group includes occupations concerned with serving passengers and crewmembers on cargo, passenger, or other vessels. Includes serving food and beverages in dining salon or on deck, and caring for staterooms, bathrooms, and public rooms.

350.137-010 HEADWAITER/HEADWAITRESS (water trans.)
Supervises and coordinates activities of dining room personnel to serve food aboard ship: Assigns duties, work stations, and responsibilities to personnel and directs their performances. Inspects dining tables and work areas for cleanliness. Greets patrons and shows them to dining tables. Requisitions supplies, such as glassware, china, and silverware. Authorizes personnel to work overtime. May suggest entrees, dinner courses, and wines to guests. May serve wine [STEWARD/STEWARDESS, WINE (water trans.)].
GOE: 09.01.03 STRENGTH: L GED: R3 M2 L3 SVP: 7 DLU: 77

350.137-014 STEWARD/STEWARDESS, CHIEF, CARGO VESSEL (water trans.)
Supervises and coordinates activities of personnel in steward's department aboard cargo vessel: Collaborates with COOK, CHIEF (water trans.) to plan menus. Requisitions and purchases expendable equipment and subsistence and sundry stores. Receives, checks, and issues stores. Inventories supplies. Authorizes personnel to work overtime. Estimates food costs per serving. Compiles supply, overtime, and cost control records.
GOE: 07.01.02 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

350.137-018 STEWARD/STEWARDESS, CHIEF, PASSENGER SHIP (water trans.)
Supervises and coordinates activities of personnel in steward's department aboard passenger vessel: Supervises workers engaged in housekeeping and meal serving. Arranges space for shipboard recreation activities. Inspects passenger areas for cleanliness. Observes services rendered by steward personnel for conformance to company standards. Collaborates with CHEF, PASSENGER VESSEL (water trans.) to plan menus. Requisitions stores, such as food, sundries, and furniture. Obtains replacements for personnel leaving ship.
GOE: 05.12.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

350.137-022 STEWARD/STEWARDESS, SECOND (water trans.)
Supervises and coordinates activities of workers engaged in providing accommodation services to first class passengers: Assigns personnel to work stations in passenger areas, such as staterooms, lounges, deck, and smokeroom and informs them of duties and responsibilities to passengers. Inspects work areas with STEWARD/STEWARDESS, CHIEF, PASSENGER SHIP (water trans.) to ascertain that service given passengers is in accordance with company standards. Coordinates work assignments so that additional help is available for recreational activities. May be designated according to shift worked as Second Steward/Stewardess, Night (water trans.); or according to class of passengers served as Steward/Stewardess, Economy Class (water trans.); Steward/Stewardess, Second Class (water trans.); Steward/Stewardess, Third Class (water trans.); Steward/Stewardess, Tourist Class (water trans.).
GOE: 09.01.04 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

350.137-026 STEWARD/STEWARDESS, THIRD (water trans.)
Supervises and coordinates activities of workers engaged in providing housekeeping services to officers and crew: Assigns personnel to work stations, such as officers' and crew's quarters, and messrooms. Inspects work stations for cleanliness. Requisitions stores, such as soap, scrubbing brushes, and mops.
GOE: 05.12.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

350.677-010 MESS ATTENDANT (water trans.)
Serves food to officers and crew aboard ship: Prepares hot and cold drinks, and fruits, for serving, and sets tables for meals. Serves food. Washes glassware

and silverware after meals, cleans messroom, and disposes of trash and garbage. Makes beds and cleans bedrooms and bathrooms assigned to ship's officers. May be designated according to area in which work is performed or personnel served as Mess Attendant, Crew (water trans.); Mess Attendant, Officers' Room (water trans.); Mess Attendant, Officers' Salon (water trans.).
GOE: 09.05.02 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

350.677-014 PASSENGER ATTENDANT (water trans.)
Serves passengers aboard ship by performing any combination of following duties: Answers bells from staterooms requesting service. Obtains food or beverage from galley, pantry, or bar, and carries it to staterooms. Demonstrates donning of life jackets during passenger boat drill. Serves hors d'oeuvres during entertainment. Cleans work area. Relieves ELEVATOR OPERATOR (any industry) during breaks.
GOE: 09.05.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

350.677-018 STEWARD/STEWARDESS, BATH (water trans.)
Services bathrooms aboard ship, and schedules passengers for baths and showers: Prepares baths and showers at times requested and informs passengers. Cleans bathrooms, showers, sinks, and other lavatory equipment. Replenishes supplies, such as towels, bathmat, and soap. May clean public toilets in assigned area.
GOE: 05.12.18 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

350.677-022 STEWARD/STEWARDESS (water trans.)
Attends to comfort of passengers aboard ship: Issues sun pads and sports equipment to passengers on deck. Arranges card tables and chairs and provides playing cards, pencils, and score pads for passengers in lounge. Carries passengers' baggage to assigned rooms, and cleans rooms, changes linens and towels, and makes up beds and berths. Issues and arranges game equipment for passengers in smoking room. Serves cold drinks and snacks to passengers. May be required to hold certficates issued by U.S. Coast Guard to handle food and man lifeboat. When attending to passengers at night, may be designated Steward/Stewardess, Night (water trans.). May be designated according to location of passengers attended as Steward/Stewardess, Deck (water trans.); Steward/Stewardess, Lounge (water trans.); Steward/Stewardess, Room (water trans.); Steward/Stewardess, Smoke Room (water trans.).
GOE: 09.01.04 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

350.677-026 STEWARD/STEWARDESS, WINE (water trans.)
Serves alcoholic beverages to guests in dining room and in other locations aboard passenger ship: Arranges linens, glassware, and stores on station prior to opening dining room. Chills wines to be served. Serves drinks to dining room guests. Serves wines, cocktails, and other spiritous liquors to passengers in ballroom or smoking room after dining hours and at shipboard sailing parties. Cleans assigned section of dining room. Must be certified by U.S. Coast Guard. May be required to hold Lifeboatman certificate.
GOE: 09.05.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

350.677-030 WAITER/WAITRESS (water trans.) alternate titles: steward/stewardess, dining room
Serves passengers in ships' dining rooms: Obtains linen, silver, glassware, and china to set tables. Arranges settings on tables. Provides dining room service to passengers [WAITER/WAITRESS, FORMAL (hotel & rest.)]. Maintains assigned station, including table pieces, side stands, and chairs. May be designated according to class of passengers served as Waiter/Waitress, Cabin Class (water trans.); Waiter/Waitress, Economy Class (water trans.); Waiter/Waitress, First Class (water trans.); Waiter/Waitress, Second Class (water trans.); Waiter/Waitress, Third Class (water trans.); Waiter/Waitress, Tourist Class (water trans.).
GOE: 09.05.02 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

351 TRAIN ATTENDANTS

This group includes occupations concerned with providing services to train passengers. Includes preparation of sleeping berths and private compartments; providing newspapers, food, drink, and personal articles on request; and dispensing general information.

351.677-010 SERVICE ATTENDANT, SLEEPING CAR (r.r. trans.) alternate titles: porter, pullman
Performs variety of personal services for railroad patrons: Carries hand baggage to station platform from seat. Makes berths. Supplies towels to washroom. Furnishes patrons with light lunches, drinks, card tables, or other articles they may request. When only one sleeping car is in train, may perform duties of CONDUCTOR, PULLMAN (r.r. trans.).
GOE: 09.01.04 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

352 HOSTS/HOSTESSES AND STEWARDS/STEWARDESSES, N.E.C.

This group includes occupations, not elsewhere classified, concerned with rendering a variety of personal services, such as seeing that travelers on board bus, airplane, or railroad are made comfortable; and arranging recreational activities for guests in hotels or at places of amusement, or introducing guests to each other.

352.137-010 SUPERVISOR, AIRPLANE-FLIGHT ATTENDANT (air trans.)
Supervises and coordinates activities of flight attendants: Assigns duties and areas of work to AIRPLANE-FLIGHT ATTENDANT (air trans.) to provide services for airline passengers. Observes activities of employees to evaluate work performance and maintains personnel records. Explains and demonstrates methods and procedures for performing tasks. Prepares evaluation reports on performance of employees. Analyzes, records, and prepares reports of personnel activities. Interprets company policies and practices for workers. May update local procedures manuals and guides according to directives and oral instructions.
GOE: 09.01.04 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

352.167-010 DIRECTOR, SOCIAL (hotel & rest.; water trans.) alternate titles: director, recreation
Plans and organizes recreational activities and creates friendly atmosphere for guests in hotels and resorts or for passengers on board ship: Greets new arrivals, introduces them to other guests, acquaints them with recreation facilities, and encourages them to participate in group activities. Ascertains interests of group and evaluates available equipment and facilities to plan activities, such as card parties, games, tournaments, dances, musicals, and field trips. Arranges for activity requirements, such as setting up equipment, transportation, decorations, refreshments, and entertainment. Associates with lonely guests and visits those who are ill. May greet and seat guests in dining room. May assist management in resolving guests' complaints.
GOE: 09.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

352.367-010 AIRPLANE-FLIGHT ATTENDANT (air trans.) alternate titles: airplane-cabin attendant
Performs variety of personal services conducive to safety and comfort of airline passengers during flight: Greets passengers, verifies tickets, records destinations, and directs passengers to assigned seats. Assists passengers to store carry-on luggage in overhead, garment, or under seat storage. Explains use of safety equipment, such as seat belts, oxygen masks, and life jackets. Walks aisle of plane to verify that passengers have complied with federal regulations prior to take off. Serves previously prepared meals and beverages. Observes passengers to detect signs of discomfort, and issues palliatives to relieve passenger ailments, such as airsickness and insomnia. Administers first aid according to passenger distress when needed. Answers questions regarding performance of aircraft, stopovers, and flight schedules. Performs other personal services, such as distributing reading material and pointing out places of interest. Prepares reports showing place of departure and destination, passenger ticket numbers, meal and beverage inventories, palliatives issued, and lost and found articles. May collect money for meals and beverages.
GOE: 09.01.04 STRENGTH: M GED: R4 M3 L3 SVP: 3 DLU: 81

352.367-014 FLIGHT ATTENDANT, RAMP (air trans.)
Checks AIRPLANE-FLIGHT ATTENDANT'S (air trans.) conformance to personal appearance standard and performance of preflight duties during boarding stage of scheduled airline flights, and compiles report of findings. Inspects appearance and grooming of personnel for conformance to company standards. Observes performance of on-board airplane preflight duties and inspections by personnel for conformance, adequacy, and completeness. Records errors, inadequacies, and reasons for deviation on daily checksheet and forwards checksheet to supervisor. Extracts information from checksheets and writes performance reports for inclusion in personnel folders. Consolidates trip report and daily checklist information regarding work performed, emergency equipment, safety procedures, and appearance standards for use by supervisor. Prepares flight register and schedules to indicate assignments. Notifies personnel of changes in schedules.
GOE: 09.01.04 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

352.377-010 HOST/HOSTESS, GROUND (air trans.)
Renders personal services to passengers in airline terminal to facilitate movement of passengers through terminal and create goodwill: Greets and welcomes passengers to terminal. Answers questions and advises passengers concerning flight schedules and accommodations, such as arrival or departure time, location of concourses and gates, and selection of seat on aircraft. Performs such tasks as assembling and forwarding luggage to departing flight, or guiding and escorting passengers to designated gate for boarding of aircraft, to expedite transfer of passengers between airline flights. Informs passengers, upon request, concerning fares, airline schedules, and travel itineraries, and distributes brochures to promote interest and sale of air travel. Informs passengers of terminal facilities, such as rest rooms and snackbar, to promote comfort and well being of passengers.
GOE: 09.01.04 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

352.577-010 BUS ATTENDANT (motor trans.)
Renders variety of personal services to bus passengers to make their trip pleasant: Welcomes passengers boarding bus. Adjusts seating arrangement to accommodate passengers when requested. Answers questions about bus schedules, travel routes, and bus services. Points out places of interest. Distributes magazines, newspapers, pillows and blankets. Mails passengers' letters and arranges for dispatch of telegrams. Tends tape recorder to provide music. Serves refreshments. Lists names of passengers on manifest. Maintains inventory to account for food served during trip and food on hand. May warm bottles for babies.

GOE: 09.01.04 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

352.667-010 HOST/HOSTESS (any industry) alternate titles: receptionist

Greets guests arriving at country club, catered social function, or other gathering place. Introduces guests and suggests planned activities, such as dancing or games. Gives directions to personnel engaged in serving of refreshments. May plan menus and supervise activities of food-service workers. May plan and participate in social activities, games, and sports, depending on nature of establishment or function. May deposit or pick up guests at railway station, home, or other location as directed.
GOE: 09.01.01 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

352.667-014 PARLOR CHAPERONE (hotel & rest.) alternate titles: counselor

Chaperones young people attending social functions held in hotels or restaurants: Greets guests and answers questions regarding program. Arranges for entertainment, such as games, concerts, and motion pictures. Asks guests to observe rules of establishment or reports offenders to HOUSE OFFICER (hotel & rest.). May collect tickets for admission to events.
GOE: 09.01.01 STRENGTH: L GED: R3 M1 L2 SVP: 2 DLU: 77

352.677-010 PASSENGER SERVICE REPRESENTATIVE I (r.r. trans.) alternate titles: host/hostess, railway

Renders personal services to railroad passengers to make their trip pleasant and comfortable: Straightens seat cushions and window shades to prepare cars for passengers. Greets passengers boarding trains and introduces passengers to each other. Answers questions about train schedules, travel routes, and railway services. Assists in feeding and caring for children during transit. Assists ill passengers.
GOE: 09.01.04 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

352.677-014 RECEPTIONIST, AIRLINE LOUNGE (air trans.)

Admits members and guests to airline lounge, serves beverages and snacks, and provides other personal services as requested: Opens door to lounge in response to sound of buzzer, verifies membership cards, and admits and seats members and guests. Serves refreshments such as cocktails, coffee and snacks. Answers questions regarding scheduled flights and terminal facilities. Verifies passengers' reservations. Directs or accompanies passengers to departure gates, rest rooms and other terminal facilities. Relays requests for paging service, using telephone. Opens cans, bottles, and packages; brews coffee; and arranges pastry, nuts, and appetizers on serving trays. Removes used ash trays, glasses, and dishes from tables and picks up trash.
GOE: 09.01.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

352.677-018 WAITER/WAITRESS, CLUB (hotel & rest.) alternate titles: page

Attends members in private club by performing duties, such as the following: Takes orders for food and beverages and serves members in dining room or clubrooms. Brings cards, chips, amusement devices, candies, tobacco, and other articles as requested. Places orders for clubroom reservation. Delivers telephone, telegraph, and personal messages. Removes card tables, sweeps and dusts furniture and woodwork, vacuums rugs, and otherwise keeps rooms and halls clean.
GOE: 09.05.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

353 GUIDES

This group includes occupations concerned with escorting individuals or groups on hunting and fishing trips, cruises, sightseeing tours, and through such places of interest as industrial establishments, public buildings, museums, and art galleries.

353.137-010 GUIDE, CHIEF AIRPORT (air trans.)

Supervises and coordinates activities of workers engaged in conducting guided tours at airport: Arranges tours according to interests of groups, such as school children, foreign visitors, and civic or private organizations. Schedules tours to avoid interruption of airport operations and minimize congestion. Assigns workers to guide tours. Provides information to workers about interests of specific groups. Coaches workers on organization, history, and function of airport, and use of airport facilities. Observes workers' dress and performance on guided tours to assure conformance to department standards. Confers with public relations personnel to plan special event programs. Prepares reports showing number of people taking tours, type of tours, and public reaction.
GOE: 09.01.02 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 77

353.161-010 GUIDE, HUNTING AND FISHING (amuse. & rec.)

Plans, organizes and conducts hunting and fishing trips for individuals and groups: Plans itinerary for hunting and fishing trips applying knowledge of countryside to determine best route and sites. Arranges for transporting sportsman, equipment and supplies to hunting or fishing area using horses, land vehicles, motorboat, or airplane. Explains hunting and fishing laws to ensure compliance. Instructs members of party in use of hunting or fishing gear. Prepares meals for members of party. Administers first aid to injured sportsmen. May care for animals. May sell or rent equipment, clothing and supplies. May pilot airplane or drive land and water vehicles.
GOE: 09.01.01 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 77

353.164-010 GUIDE, ALPINE (personal ser.)

Organizes and conducts mountain-climbing expeditions for adventurers or tourists: Arranges for camping and climbing equipment, transportation to site of ascent, and services of medical or other personnel as needed. Selects ascent consistent with experience and endurance of members of climbing party. Leads party to site of ascent and during climb. Gives advice and instruction to climbing novices in accepted techniques and use of equipment. May obtain permits to climb in restricted areas and verify quantity and quality of client-furnished equipment to ensure fulfillment of prerequisites prior to departure. May give classroom instructions in mountaineering and wilderness survival.
GOE: 09.01.01 STRENGTH: V GED: R4 M3 L4 SVP: 7 DLU: 77

353.167-010 GUIDE, TRAVEL (personal ser.) alternate titles: guide, excursion; guide, itinerary; guide, tour

Arranges transportation and other accommodations for groups of tourists, following planned itinerary, and escorts groups during entire trip, within single area or at specified stopping points of tour: Makes reservations on ships, trains, and other modes of transportation, and arranges for other accommodations, such as baggage handling, dining and lodging facilities, and recreational activities, using communication media, such as cable, telegraph, or telephone. Accompanies tour group and describes points of interest. May assist tourists to plan itinerary, obtain travel certificates, such as visas, passports, and health certificates, and convert currency into travelers' checks or foreign moneys. May be designated according to method of transportation used as Guide, Cruise (personal ser.); or locality of tour as Guide, Domestic Tour (personal ser.); Guide, Foreign Tour (personal ser.).
GOE: 07.05.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

353.363-010 GUIDE, SIGHTSEEING (amuse. & rec.; personal ser.) alternate titles: barker; cicerone; spieler

Drives motor vehicle to transport sightseers and lectures group concerning points of interest during sightseeing tour: Drives limousine or sightseeing bus, stopping vehicle at establishments or locations, such as art gallery, museum, battlefield, and cave, to permit group to be escorted through buildings by GUIDE, ESTABLISHMENT (any industry) 353.367-014. Describes points of interest along route of tour, using public address system or megaphone. May collect fees or tickets, and plan refreshment and rest stops. May escort group through establishment and describe points of interest. May operate tram to transport patrons through amusement park and be designated Tram Operator (amuse. & rec.).
GOE: 09.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 81

353.364-010 DUDE WRANGLER (amuse. & rec.)

Performs combination of the following services for patrons of dude ranch to enhance guests' enjoyment: Saddles and unsaddles horses, adjusting equipment to accommodate each guest. Assists guests in mounting and dismounting. Plans itinerary of trips, taking into consideration wishes and preferences of guests, knowledge of terrain, and location of suitable campsites. Packs horses with supplies and provisions for extended or overnight trips. Drives or leads pack horses. Pitches camp, prepares fire, and participates in cooking for camping parties. Advises guests concerning suitable hunting and fishing sites and applicable conservation and wildlife laws. Entertains guests by singing, telling stories, or playing guitar or other instrument. Escorts female guests to dances and other social functions. May participate in rodeos provided by ranch management for entertainment of guests. May repair saddles.
GOE: 12.01.02 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

353.367-010 GUIDE (personal ser.) alternate titles: guide, visitor

Escorts visitors around city or town: Advises visitors, such as convention delegates, foreign government personnel, or salesmen, as to location of buildings, points of interest, and other sites, or escorts visitors to designated locations, using private or public transportation. May carry equipment, luggage, or sample cases for visitors. May be required to speak foreign language when communicating with foreign visitors. May be designated according to type of visitor directed or escorted as Guide, Delegate (personal ser.).
GOE: 09.01.02 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

353.367-014 GUIDE, ESTABLISHMENT (any industry) alternate titles: guide, tour

Escorts group of people through establishment, such as museum, aquarium, or public or historical building, or through historic or scenic outdoor site, such as battlefield, park, or cave, usually following specified route: Lectures concerning size, value, and history of establishment, points out features of interest, and gives other information peculiar to establishment. Answers questions of group. Assumes responsibility for safety of group. May collect fees from members of group. May solicit patronage. May distribute brochures on establishment or historical site to visitors. May be designated Airport Guide (air trans.).
GOE: 09.01.02 STRENGTH: L GED: R3 M1 L3 SVP: 3 DLU: 80

353.367-018 GUIDE, PLANT (any industry) alternate titles: plant tour guide

Escorts group of people through industrial establishment, and describes features of interest: Leads way along specified route and explains various processes and operation of machines. Answers questions and supplies information on work of department or departments visited.
GOE: 09.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

353.367-022 PAGE (radio-tv broad.)

Conducts visitors on tours of radio and television station facilities and explains duties of staff, operation of equipment, and methods of broadcasting. Utilizing general knowledge of various phases of radio and television station oper

ations. Runs errands within studio. May relieve telephone switchboard operator. May perform general clerical duties such as taking messages, filing, and typing.
GOE: 09.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

353.667-010 ESCORT (any industry)
Guides visitors to destinations in industrial establishment: Escorts visitors to office, department, or section of plant. May collect and deliver mail and messages. May issue identification badges and safety devices to visitors.
GOE: 09.05.08 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

354 UNLICENSED BIRTH ATTENDANTS AND PRACTICAL NURSES

This group includes occupations concerned with bathing patients, taking and recording pulse and temperature readings, giving injections, assisting women in childbirth, caring for and feeding infants, giving first aid, and performing similar routine nursing tasks. Knowledge is acquired primarily through practical experience. Licensed practical nursing occupations are included in Group 079.

354.374-010 NURSE, PRACTICAL (medical ser.)
Cares for patients and children in private homes, hospitals, sanitoriums, industrial plants, and similar institutions: Bathes and dresses bed patients, combs hair, and otherwise attends to their comfort and personal appearance. Cleans room, and changes bed linen. Takes and records temperature, pulse, and respiration rate. Gives medication as directed by physician or NURSE, GENERAL DUTY (medical ser.) 075.364-010, and makes notation of amount and time given. Gives enemas, douches, massages, and alcohol rubs. Applies hot and cold compresses and hot water bottles. Sterilizes equipment and supplies, using germicides, sterilizer, or autoclave. Prepares food trays, feeds patients, and records food and liquid intake and output. Cooks, washes, cleans, and does other housekeeping duties in private home. May give injections. May care for infants and small children in private home. For practical nurses meeting state licensing requirements see NURSE, LICENSED PRACTICAL (medical ser.) 079.374-014.
GOE: 10.03.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

354.377-010 BIRTH ATTENDANT (medical ser.)
Provides assistance to women during childbirth, in absence of medical practitioner. May function under supervision of local or state health department.
GOE: 10.03.02 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

354.377-014 HOME ATTENDANT (personal ser.) alternate titles: home health aide
Cares for elderly, convalescent, or handicapped persons in patient's home, performing any combination of following tasks: Changes bed linens, washes and irons patient's laundry, and cleans patient's quarters. Purchases, prepares, and serves food for patient and other members of family, following special prescribed diets. Assists patients into and out of bed, automobile, or wheelchair, to lavatory, and up and down stairs. Assists patient to dress, bathe, and groom self. Massages patient and applies preparations and treatments, such as liniment or alcohol rubs and heat-lamp stimulation. Administers prescribed oral medications under written direction of physician or as directed by home care nurse. Accompanies ambulatory patients outside home, serving as guide, companion, and aide. Entertains patient, reads aloud, and plays cards or other games with patient. Performs variety of miscellaneous duties as requested, such as obtaining household supplies and running errands. May maintain records of services performed and of apparent condition of patient. May visit several households to provide daily health care to patients.
GOE: 10.03.03 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

354.677-010 FIRST-AID ATTENDANT (any industry) alternate titles: nurse, first aid
Renders first aid and subsequent treatment to injured or ill employees at industrial plant, commercial establishment, mine, or construction site: Sterilizes, disinfects, anoints, and bandages minor cuts and burns. Applies artificial respiration or administers oxygen, in cases of suffocation and asphyxiation. Administers medications, such as aspirin or antiseptic solution, to relieve pain or prevent infection until patient can receive professional care, and gives prescribed medicines and treatments for illness. Changes beds, cleans equipment, and maintains infirmary for ward patients. Aids physician during emergency situations. Keeps personal and medical records of employees.
GOE: 10.03.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

355 ATTENDANTS, HOSPITALS, MORGUES, AND RELATED HEALTH SERVICES

This group includes occupations concerned with attending to the physical comfort, safety, and appearance of patients; performing routine menial tasks; and assisting in conducting occupational and recreational therapy.

355.354-010 PHYSICAL THERAPY AIDE (medical ser.)
Prepares patients for physical therapy treatments, assists PHYSICAL THERAPIST (medical ser.) 076.121-014 or PHYSICAL THERAPIST ASSISTANT (medical ser.) 076.224-010 during administration of treatments, and provides routine treatments: Assists patients to dress, undress, and put on and remove supportive devices, such as braces, splints, and slings, before and after treatments. Secures patients into or onto therapy equipment. Safeguards, motivates, and assists patients practicing exercises and functional activities under direction of professional staff. Provides routine treatments, such as hydrotherapy, hot and cold packs, and paraffin bath. Transports patients to and from treatment area. Cleans work area and equipment after treatment. May record treatment given and equipment used. May inventory and requisition supplies and equipment. May adjust fit of supportive devices for patients, as instructed. May be assigned to specific type of treatment or patient service and be designated Physical Therapy Aide, Hydrotherapy (medical ser.); Physical Therapy Aide, Transport (medical ser.).
GOE: 10.03.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 87

355.374-010 AMBULANCE ATTENDANT (medical ser.)
Accompanies and assists AMBULANCE DRIVER (medical ser.) on calls: Assists in lifting patient onto wheeled cart or stretcher and into and out of ambulance. Renders first aid, such as bandaging, splinting, and administering oxygen. May be required to have Red Cross first-aid training certificate.
GOE: 10.03.02 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

355.374-014 CERTIFIED MEDICATION TECHNICIAN (medical ser.)
Administers prescribed medications to patients and maintains related medical records under supervision of NURSE, GENERAL DUTY (medical ser.) 075.364-010: Verifies identity of patient receiving medication and records name of drug, dosage, and time of administration on specified forms or records. Presents medication to patient and observes ingestion or other application, or administers medication, using specified procedures. Takes vital signs or observes patient to detect response to specified types of medications and prepares report or notifies designated personnel of unexpected reactions. Documents reasons prescribed drugs are not administered. Gives direct patient care, such as bathing, dressing, and feeding patients, and assisting in examinations and treatments [NURSE AIDE (medical ser.) 355.674-014]. May receive supply of ordered medications and apportion, mix, or assemble drugs for administration to patient. May record and restock medication inventories.
GOE: 10.03.02 STRENGTH: M GED: R3 M3 L3 SVP: 2 DLU: 89

355.377-010 OCCUPATIONAL THERAPY AIDE (medical ser.)
Assists OCCUPATIONAL THERAPIST (medical ser.) 076.121-010 or OCCUPATIONAL THERAPY ASSISTANT (medical ser.) 076.364-010 in occupational therapy program in hospital or similar institution: Performs program support services, such as transporting patient, assembling equipment, and preparing and maintaining work areas, as directed by professional staff. Assists in maintaining supplies and equipment. May help professional staff demonstrate therapy techniques, such as manual and creative arts, games, and daily living activities to patients. May assist in selected aspects of patient services as assigned.
GOE: 10.03.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 81

355.377-014 PSYCHIATRIC AIDE (medical ser.) alternate titles: assistant therapy aide; asylum attendant; charge attendant; chemical dependency attendant; psychiatric attendant; ward attendant
Assists patients, working under direction of nursing and medical staff in psychiatric, chemical dependency, or similar setting: Accompanies patients to shower rooms, and assists them in bathing, dressing, and grooming. Accompanies patients to and from wards for examination and treatment, administers prescribed medications, measures vital signs, performs routine nursing procedures, such as collecting laboratory specimens, giving enemas and douches, and drawing blood samples, and records information in patients' charts. Assists patients in becoming accustomed to hospital routine and encourages them to participate in social and recreational activities to promote rehabilitation. Observes patients to ensure that none wanders from ward areas or grounds. Feeds patients or attempts to persuade them to eat, and notes and records reasons for rejection of food. Observes patients to detect unusual behavior, and aids or restrains them to prevent injury to themselves or others. May escort patients off grounds to medical or dental appointments, library, church services, motion pictures, or athletic events. May clean rooms, ward furnishings, walls, and floors, using water, detergents, and disinfectants. May change bed linens. May interview patients upon admission and record data obtained. May be designated Ward Supervisor (medical ser.) when responsible for patient care and other services of single ward.
GOE: 10.03.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 89

355.377-018 MENTAL-RETARDATION AIDE (medical ser.) alternate titles: resident care aide
Assists in providing self-care training and therapeutic treatments to residents of mental retardation center: Demonstrates activities such as bathing and dressing to train residents in daily self-care practices. Converses with residents to reinforce positive behaviors and to promote social interaction. Serves meals and eats with residents to act as role model. Accompanies residents on shopping trips and instructs and counsels residents in purchase of personal items. Aids staff in administering therapeutic activities, such as physical exercises, occupational arts and crafts, and recreational games, to residents. Restrains disruptive residents to prevent injury to themselves and others. Observes and documents residents' behaviors, such as speech production, feeding patterns, and toilet training, to facilitate assessment and development of treatment goals. Attends to routine health-care needs of residents under supervision of medical personnel. May give medications as prescribed by physician. May train parents or guardians in care of deinstitutionalized residents.
GOE: 10.03.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 87

355.667-010 MORGUE ATTENDANT (medical ser.)

Prepares bodies, specimens of human organs, and morgue room to assist PATHOLOGIST (medical ser.) in postmortem examinations: Places body in compartment tray of refrigerator or on autopsy table, using portable hoist and stretcher. Lays out surgical instruments and laboratory supplies for postmortem examinations. Washes table, storage trays, and instruments, sharpens knives, and replaces soiled linens. Records identifying information for morgue file. Releases body to authorized person. May close post mortem incisions, using surgical needle and cord. May fill cranium with plaster. May feed, water, and clean quarters for animals used in medical research. May prepare preserving solutions according to formulas. May preserve specimens and stain slides. May photograph specimens.

GOE: 02.04.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

355.674-010 CHILD-CARE ATTENDANT, SCHOOL (personal ser.)

Attends to personal needs of handicapped children while in school to receive specialized academic and physical training: Wheels handicapped children to classes, lunchrooms, treatment rooms, and other areas of building. Secures children in equipment, such as chairs, slings, or stretchers, and places or hoists children into baths or pools. Monitors children using life support equipment to detect indications of malfunctioning of equipment and calls for medical assistance when needed. Helps children to walk, board buses, put on prosthetic appliances, eat, dress, bathe, and perform other physical activities as their needs require.

GOE: 10.03.03 STRENGTH: M GED: R3 M1 L2 SVP: 2 DLU: 81

355.674-014 NURSE ASSISTANT (medical ser.) alternate titles: nurse aide

Performs any combination of following duties in care of patients in hospital, nursing home, or other medical facility, under direction of nursing and medical staff: Answers signal lights, bells, or intercom system to determine patients' needs. Bathes, dresses, and undresses patients. Serves and collects food trays and feeds patients requiring help. Transports patients, using wheelchair or wheeled cart, or assists patients to walk. Drapes patients for examinations and treatments, and remains with patients, performing such duties as holding instruments and adjusting lights. Turns and repositions bedfast patients, alone or with assistance, to prevent bedsores. Changes bed linens, runs errands, directs visitors, and answers telephone. Takes and records temperature, blood pressure, pulse and respiration rates, and food and fluid intake and output, as directed. Cleans, sterilizes, stores, prepares, and issues dressing packs, treatment trays, and other supplies. Dusts and cleans patients' rooms. May be assigned to specific area of hospital, nursing home, or medical facility. May assist nursing staff in care of geriatric patients and be designated Geriatric Nurse Assistant (medical ser.). May assist in providing medical treatment and personal care to patients in private home settings and be designated Home Health Aide (medical ser.).

GOE: 10.03.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 89

355.674-018 ORDERLY (medical ser.)

Performs any combination of following tasks, as directed by nursing and medical staff, to care for patients in hospital, nursing home, or other medical facility: Bathes patients and gives alcohol rubs. Measures and records intake and output of liquids, and takes and records temperature, and pulse and respiration rate. Gives enemas. Carries meal trays to patients and feeds patients unable to feed themselves. Lifts patients onto and from bed, and transports patients to other areas, such as operating and x-ray rooms, by rolling bed, or using wheelchair or wheeled stretcher. Sets up equipment, such as oxygen tents, portable x-ray machines, and overhead irrigation bottles. Makes beds and collects soiled linen. Cleans rooms and corridors. Bathes deceased patients, accompanies body to morgue, and places personal belongings in mortuary box. Administers catheterizations and bladder irrigations. Accompanies discharged patients home or to other institutions.

GOE: 10.03.02 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 86

355.674-022 RESPIRATORY-THERAPY AIDE (medical ser.)

Performs any combination of following tasks to assist personnel in Respiratory Therapy Department: Cleans, disinfects, and sterilizes equipment used in administration of respiratory therapy. Examines equipment to detect worn tubes, loose connections, or other indications of disrepair, and notifies supervisor of need for maintenance. Starts equipment and observes gauges measuring pressure, rate of flow, and continuity to test equipment, and notifies supervisor of malfunctions. Assists in preparation of inventory records. Delivers oxygen tanks and other equipment and supplies to specified hospital locations. Assists in administration of gas or aerosol therapy as directed by RESPIRATORY THERAPIST (medical ser.) 076.361-014 and prescribed by physician.

GOE: 10.03.02 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 88

355.677-014 TRANSPORTER, PATIENTS (medical ser.) alternate titles: escort, patients

Escorts or transports patients within hospital or other medical facility: Determines patient name, destination, mode of travel, time, and other data, following written or oral instructions. Directs or escorts incoming patients from admitting office or reception desk to designated area. Carries patient's luggage. Assists patient in walking to prevent accidents by falling, or transports nonambulatory patient, using wheelchair. Transports patient, alone or with assistance, in bed, wheeled cart, or wheelchair to designated areas within facility during patient stay. Delivers messages, mail, medical records, and other items.

GOE: 10.03.03 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 88

355.687-014 GRAVES REGISTRATION SPECIALIST (military ser.)

Collects and identifies remains of deceased military personnel, both buried and unburied, and evacuates bodies to rear area for burial activities: Searches battlefields and other areas for unburied dead and for isolated and unmarked graves. Exhumes bodies of buried dead. Examines immediate area for identification items, such as dog tags, watches, and similar personal effects, and transports remains and personal effects to rear area. Takes fingerprints, skeletal x rays, and prepares teeth chart to aid in identifying remains. Examines remains, removes personal effects, and records property inventory on designated forms. Records identity of remains including name, military unit, location, and cause and date of death. Indicates location of temporary graves on map, sketch, or overlay for purposes of future recovery.

GOE: 02.04.02 STRENGTH: V GED: R2 M2 L2 SVP: 3 DLU: 77

357 BAGGAGE HANDLERS

This group includes occupations concerned with carrying bags for passengers in train, bus, marina and airplane terminals; checking baggage and calling taxicabs; pushing wheelchairs for invalids; and connecting marine utilities to boats for customers. Occupations concerned with handling of baggage for guests of hotels and related establishments are included in Group 324.

357.477-010 BAGGAGE CHECKER (air trans.; motor trans.) alternate titles: luggage checker

Receives and returns baggage to passengers at motorbus or airline terminals: Prepares and attaches baggage claim checks. Stacks baggage on specified carts or conveyors. Returns baggage to patrons on receipt of claim check. May receive, weigh, and bill parcels for express shipment by bus. May weigh baggage and collect excess weight charge. May complete baggage insurance forms, determine rate from schedule and collect charge from customer.

GOE: 09.05.03 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

357.677-010 PORTER (air trans.; motor trans.; r.r. trans.) alternate titles: porter, baggage; redcap

Carries baggage for passengers of airline, railroad, or motorbus by hand or handtruck, to waiting or baggage room, onto train or bus, or to taxicab or private automobile. Performs related services, such as calling taxicabs, directing persons to ticket windows and rest rooms, and assisting handicapped passengers upon their arrival or departure. May clean terminal floors; wash walls, windows and counters; and dust furniture. When employed in airline terminal, is designated Skycap (air trans.).

GOE: 09.05.03 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

358 CHECKROOM, LOCKER ROOM, AND REST ROOM ATTENDANTS

This group includes occupations concerned with serving clients of checkrooms, locker rooms, or rest rooms. Includes storing apparel or valuables, issuing claim checks and returning items on demand; providing towels or soap; and over-seeing children in shower or rest rooms of schools and institutions.

358.137-010 CHECKROOM CHIEF (any industry)

Supervises and coordinates activities of workers engaged in storing guests' wearing apparel, parcels and other articles in checkrooms of establishment. Reviews printed schedule of activities to determine services needed. Assigns work schedules and keeps time records of personnel. Receives customers' complaints concerning quality of service and rectifies or instructs workers to rectify complaints. Submits reports of unclaimed or lost articles to hotel security department. Performs duties as described under CHECKROOM ATTENDANT (any industry).

GOE: 09.05.03 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

358.677-010 CHECKROOM ATTENDANT (any industry)

Stores wearing apparel, luggage, bundles, and other articles for patrons of an establishment or employees of business establishment, issuing claim check for articles checked and returning articles on receipt of check. May be designated according to article stored as Baggage Checker (any industry); Coat Checker (any industry); Hat Checker (any industry); Stand-By (motion picture); Wrap Checker (any industry).

GOE: 09.05.03 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

358.677-014 LOCKER-ROOM ATTENDANT (personal ser.) alternate titles: cage clerk; dressing-room attendant; locker attendant; locker-room clerk; personal attendant; suit attendant

Assigns dressing room facilities, locker space or clothing containers, and supplies to patrons of athletic or bathing establishment: Issues dressing room or locker key. Receives patron's clothing-filled container, furnishes claim check, places container on storage shelf or rack, and returns container upon receipt of claim check. Issues athletic equipment, bathing suit, or supplies, such as soap and towels. May arrange for valet services, such as clothes pressing and shoeshining. May collect soiled linen and perform cleaning tasks, such as mop dressing room floors, wash shower room walls and clean bathroom facilities. May collect fees for use of facilities, equipment, or supplies. May pack athletic uniforms and equipment for individual or team out-of-town sporting events. May attend to needs of athletic team in team clubhouse and be designated

Clubhouse Attendant (amuse. & rec.). May provide baseball players with baseball bats, retrieve bats and foul balls from field, and supply balls to game officials and be designated Bat Boy/Girl (amuse. & rec.).
GOE: 09.05.07 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 81

358.677-018 REST ROOM ATTENDANT (any industry) alternate titles: lavatory attendant; toilet attendant; washroom attendant

Serves patrons of lavatories in store, public building, hotel, or similar establishment by providing soap and towels, brushing patrons' clothing, shining shoes, sewing on loose buttons, and performing related services. Replenishes rest room supplies. May scrub lavatory, floors, walls, mirrors, and fixtures, using brushes, detergent, and water. May administer first aid to ill or injured patrons.
GOE: 09.05.07 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

358.687-010 CHANGE-HOUSE ATTENDANT (any industry) alternate titles: dry boss; dry janitor; shower room attendant

Maintains building, such as locker room of golf club, change house of mining camp, or shower facilities of industrial plant, in which patrons or workers shower and change clothes: Sweeps floor and scrubs shower stalls, using broom, brushes, and soap and water. Opens windows to control ventilation or adjusts controls of automatic heating, cooling, or dehumidifying unit to maintain healthful and comfortable conditions. May fire boiler to heat water for bathing or heating facility. May place contaminated work clothes in vacuum chamber for removal of toxic chemical dust. May requisition and issue supplies, such as soap, towels, and protective clothing.
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

359 MISCELLANEOUS PERSONAL SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with personal services.

359.137-010 SUPERVISOR, HOSPITALITY HOUSE (amuse. & rec.)

Supervises and coordinates activities of workers engaged in greeting, guiding, and serving patrons in amusement and recreation facilities: Formulates roster and personnel work assignments to assure work coverage. Explains work procedures for subordinates. Prepares written reports of operational activities to aid in planning future activities. Verifies cleanliness of facilities and operability of equipment and forwards work order forms on equipment requiring maintenance or repair to management. Inventories and orders supplies, checks and turns in receipts, and reviews correspondence. Attends meeting to plan future operational activities and implementation of plans with other department heads.
GOE: 09.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

359.363-010 HEALTH-EQUIPMENT SERVICER (medical ser.)

Delivers, installs, demonstrates, and maintains rental medical equipment, such as respirator, oxygen equipment, hospital beds, and wheelchairs, for use in private residences: Loads medical equipment on truck and delivers equipment to renter's or patient's residence. Unloads, installs, and sets up equipment, using handtools. Inspects and maintains rental oxygen equipment, performing such tasks as inspecting hoses and water traps to detect leaks and condensation; observing gauges of oxygen analyzer, pressure gauges, and other monitoring equipment to determine pressure and oxygen content of air output of compressors and concentrators; and changing filters. Maintains record on oxygen equipment by hours of usage to determine need for maintenance.
GOE: 05.08.03 STRENGTH: V GED: R3 M2 L3 SVP: 5 DLU: 86

359.367-010 ESCORT (personal ser.) alternate titles: guide escort

Acts as social partner for person of opposite sex to enable individual to attend functions, participate in activities requiring a partner, or provide companionship or protection while visiting public establishments, such as restaurants, night clubs, theaters, and gambling houses. May suggest places of entertainment and arrange for transportation and tickets. May speak one or more foreign languages. May accompany individual on sightseeing tour [GUIDE, SIGHTSEEING (amuse. & rec.; personal ser.) 353.363-010].
GOE: 09.01.01 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

359.367-014 WEIGHT-REDUCTION SPECIALIST (personal ser.) alternate titles: nutrition educator

Assists clients in devising and carrying out weight-loss plan, using established dietary programs and positive reinforcement procedures: Interviews client to obtain information on weight development history, eating habits, medical restrictions, and nutritional objectives. Weighs and measures client, using measuring instruments, and enters data on client record. Discusses eating habits with client to identify dispensable food items and to encourage increased consumption of high nutrition, low calorie food items, or selects established diet program which matches client goals and restrictions. Explains program and procedures which should be followed to lose desired amount of weight, and answers client questions. Reviews client food diary at regular intervals to identify eating habits which do not coincide with established or agreed upon dietary program, and reviews weight loss statistics to determine progress. Counsels client to promote established goals and to reinforce positive results. May photograph client during therapy to provide visual record of progress. May conduct aversion therapy, utilizing electric shock, rancid odors, and other physical or visual stimuli to promote negative association with food designated for elimination from diet. May conduct positive conditioning therapy sessions, utilizing physical and visual stimuli to promote positive association with foods designated for increase in diet. May give client weight-loss aids, such as calorie counters, or sell nutritional products to be used in conjunction with diet program.
GOE: 09.05.01 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 86

359.567-010 REDUCING-SALON ATTENDANT (personal ser.)

Measures, weighs and records patron's body statistics, refers information to supervisor for evaluation and planning of exercise program, and demonstrates exercises and use of equipment. Monitors member's exercise activities to assure progress toward desired goals. Records patron's measurements periodically for re-evaluation.
GOE: 09.05.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

359.573-010 BLIND AIDE (personal ser.) alternate titles: clerk guide; escort, blind

Performs any combination of following duties to assist blind persons: Drives motor vehicle to transport blind persons to specified locations according to their personal and business activities. Carries brief or sample cases. Assists client with dressing, moving from one location to another, obtaining information or other personal service. Prepares and maintains records of assistance rendered. May type correspondence and reports [CLERK-TYPIST (clerical)]. May assist teacher of blind in routine classroom activities such as toiletry or group school activities.
GOE: 10.03.03 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

359.667-010 CHAPERON (personal ser.)

Accompanies minors on trips to educational institutions, public functions, or recreational activities such as dances, concerts, or sports events, to provide adult supervision in absence of parents. Follows parents' instructions regarding minors' activities and imposes limitations and restrictions to ensure their safety, well-being, and conformance to specified behavior standards. May plan free-time activities. May arrange for transportation, tickets, and meals.
GOE: 04.02.03 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

359.673-010 CHAUFFEUR (domestic ser.) alternate titles: driver

Drives private car as ordered by owner or other passenger and performs other miscellaneous duties: Assists passengers to enter and leave car and holds umbrellas in wet weather. Keeps car clean, polished, and in operating condition. May make minor repairs, such as fixing punctures, cleaning spark plugs, or adjusting carburetor. May assist CARETAKER (domestic ser.) with heavy work. May groom and exercise pets.
GOE: 09.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

359.673-014 CHAUFFEUR, FUNERAL CAR (personal ser.) alternate titles: funeral driver

Drives mortuary vehicles, such as hearses and limousines: Drives hearse to transport bodies to mortuary for embalming and from mortuary to place of funeral service or interment. Helps PALLBEARERS (personal ser.) to move casket from mortuary into hearse and from hearse to destination. Arranges flowers in hearse. Drives limousine in funeral procession, following prearranged schedule, to transport mourners. Assists passengers entering or leaving limousine. May clean vehicles prior to funeral. May dust furniture and sweep floors in mortuary. May be designated according to type of vehicle driven as Funeral-Limousine Driver (personal ser.); Hearse Driver (personal ser.).
GOE: 05.08.03 STRENGTH: V GED: R2 M1 L2 SVP: 4 DLU: 77

359.677-010 ATTENDANT, CHILDREN'S INSTITUTION (any industry) alternate titles: child-care attendant; house parent

Cares for group of children housed in city, county, private, or other similar institution, under supervision of superintendent of home: Awakens children each morning and ensures children are dressed, fed, and ready for school or other activity. Gives instructions to children regarding desirable health and personal habits. Plans and leads recreational activities and participates or instructs children in games. Disciplines children and recommends or initiates other measures to control behavior. May make minor repairs to clothing. May supervise housekeeping activities of other workers in assigned section of institution. May counsel or provide similar diagnostic or therapeutic services to mentally disturbed, delinquent, or handicapped children. May escort child to designated activities. May perform housekeeping duties in children's living area.
GOE: 10.03.03 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 81

359.677-014 FUNERAL ATTENDANT (personal ser.) alternate titles: undertaker assistant; usher

Performs variety of tasks during funeral: Places casket in parlor or chapel prior to wake or funeral service and arranges floral offerings and lights around casket, following instructions of DIRECTOR, FUNERAL (personal ser.) or EMBALMER (personal ser.). Directs or escorts mourners to parlor or chapel in which wake or funeral is held. Assists DIRECTOR, FUNERAL (personal ser.) to close coffin. Carries flowers to hearse or limousine for transportation to place of interment. Assists mourners into and out of limousines. Issues and stores funeral equipment, such as casket lowering devices and grass mats used at place of interment. May carry casket [PALLBEARER (personal ser.)].
GOE: 09.01.04 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

359.677-018 NURSERY SCHOOL ATTENDANT (any industry) alternate titles: child-care leader; child-day-care center worker; day care worker

Organizes and leads activities of prekindergarten children in nursery schools or in playrooms operated for patrons of theaters, department stores, hotels, and

similar organizations: Helps children remove outer garments. Organizes and participates in games, reads to children, and teaches them simple painting, drawing, handwork, songs, and similar activities. Directs children in eating, resting, and toileting. Helps children develop habits of caring for own clothing and picking up and putting away toys and books. Maintains discipline. May serve meals and refreshments to children and regulate rest periods. May assist in preparing food and cleaning quarters.
GOE: 10.03.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 81

359.677-022 PASSENGER SERVICE REPRESENTATIVE (air trans.)
Renders variety of personal services to airline passengers requiring other than normal service, such as company officials, distinguished persons, foreign speaking passengers, invalids, and unaccompanied children: Greets and escorts distinguished persons to lounge or waiting area. Transports special passengers between lobby and boarding area, using electric cart. Gives aid to ill or injured passengers and obtains medical assistance. Informs relatives of passengers whereabouts and condition. Assists elderly persons and unaccompanied children in claiming personal belongings and baggage. Prepares baby food for mothers with infants. Accompanies foreign speaking passengers, or aliens traveling without visas, aboard airplane and introduces them to AIRPLANE-FLIGHT ATTENDANT (air trans.). Arranges for air commuter and ground transportation. Teletypes or telephones down-line stations regarding special services for arriving passengers.
GOE: 09.01.04 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

359.677-026 PLAYROOM ATTENDANT (any industry) alternate titles: kindergartner
Entertains children in nursery of department store, country club, or similar establishment as service to patrons. Reads aloud, organizes and participates in games, and gives elementary lessons in arts or crafts.
GOE: 10.03.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

359.677-030 RESEARCH SUBJECT (any industry) alternate titles: subject, scientific research
Submits to scientifically conducted research relating to such fields as medicine, psychology, or consumer-product testing: Participates in activities such as performing physical tasks, taking psychological tests, or using experimental products, following instructions of researcher. Replies verbally or records responses to questionnaire to provide researcher with data for evaluation.
GOE: 09.05.06 STRENGTH: L GED: R3 M2 L3 SVP: 1 DLU: 86

359.685-010 CREMATOR (personal ser.)
Tends retort furnace that cremates human bodies: Slides casket containing body into furnace. Starts furnace. Adjusts valves to attain extreme heat and to maintain temperature for specified time. Allows furnace to cool. Removes unburned metal casket parts from furnace. Scrapes ashes of casket and body from furnace, using handtools. Sifts ashes through fine screen and removes extraneous material. Places remains in canister and attaches metal identification tag to canister. Cleans furnace and sweeps and washes floors. May place rings and jewelry in temporary box for return to relatives. May clean building and fixtures. May care for lawns and shrubs.
GOE: 06.04.19 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

359.687-010 PALLBEARER (personal ser.)
Acts as one of group to carry casket from mortuary to place of funeral service and interment.
GOE: 09.05.03 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

36 APPAREL AND FURNISHINGS SERVICE OCCUPATIONS

This division includes occupations concerned with improving the appearance of and repairing clothing, furnishings, and accessories.

361 LAUNDERING OCCUPATIONS

This group includes occupations concerned with washing, drying, and mending garments and household furnishings, such as blankets, curtains, and washable rugs, in commercial laundries. Includes sorting soiled articles; examining laundered articles for spots, tears, stains, wrinkles, and other defects; and folding laundered articles.

361.137-010 SUPERVISOR, LAUNDRY (laundry & rel.)
Supervises and coordinates activities of workers engaged in receiving, marking, washing, and ironing clothes or linen in laundry: Determines sequence in which flatwork, one-day service, and white and colored work are to be scheduled through laundry to provide quick and efficient service to customers and to regulate work loads. Inspects articles to determine methods of specific cleaning requirements. Inspects finished laundered articles to ensure conformance to standards. Observes operation of machines and equipment to detect possible malfunctions. Investigates and resolves customer complaints of unsatisfactory work or bundle shortage. Studies literature of launderers' and dry cleaners' associations, and confers with salespersons to obtain information on new or improved work methods and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to activity supervised as Flatwork Supervisor (laundry & rel.); Laundry-Marker Supervisor (laundry & rel.); Receiving, Marking, And Washing Supervisor (laundry & rel.); Shirt-Ironer Supervisor (laundry & rel.); Sorting-And-Folding Supervisor (laundry & rel.); Washroom Supervisor (laundry & rel.).
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 78

361.587-010 FLATWORK TIER (laundry & rel.)
Folds, stacks, counts, and wraps ironed flatwork: Verifies customer's identification accompanying each group of flatwork. Records customer's name on company invoice. Completes folding of flatwork, such as sheets, pillowcases, and towels. Counts flatwork for each customer and records amount on production record and invoice. Verifies customer's count. Wraps flatwork, writes customer's name on bundle, and places bundle in storage bin.
GOE: 06.04.35 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

361.665-010 WASHER, MACHINE (laundry & rel.) alternate titles: steam cleaner, machine; wet cleaner, machine; wet washer, machine
Tends one or more machines that wash commercial, industrial, or household articles, such as garments, blankets, curtains, draperies, fine linens, and rags: Loads, or directs workers engaged in loading, machine with articles requiring identical treatment. Starts machine and turns valves to admit specified amounts of soap, detergent, water, bluing, and bleach. Adds starch to loads of such articles as curtains or linens, when bell signal indicates that washing cycle is completed. Removes, or directs workers in removing, articles from washer and into handtrucks or extractors. May wash delicate fabrics by hand. May mix solutions, such as bleach, bluing, or starch, and apply them to articles before or after washing to remove color or improve appearance. May spot-clean articles, before washing, to remove heavy stains. May sterilize items. May hang curtains, draperies, or blankets on stretch-frames to dry. May brush blankets, or feed blankets into carding machine, to raise and fluff nap. May pull trousers over heated metal forms to dry and stretch legs. May load and remove articles from extractor or drier by hand or hoist, using metal basket or cord mesh bag. May tend semiautomatic or computer-controlled washing machines that automatically select water levels, temperature, cleaning additives, and wash cycle according to type of articles to be laundered. May tend machines that dry articles. When washing contaminated laundry from hospital isolation wards, may be designated Isolation-Washer (laundry & rel.). May be designated according to type of articles washed as Flatwork Washer (laundry & rel.); Overall Washer (laundry & rel.); Rag Washer (laundry & rel.); Washer, Blanket (laundry & rel.).
GOE: 06.04.35 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 81

361.682-010 RUG CLEANER, MACHINE (laundry & rel.)
Operates machine that washes, rinses, and partially dries rugs and carpets: Starts machine, and turns valves to admit cleaning solutions and water. Feels rug to determine end to be fed into machine to retain natural lay of pile. Fastens edge of rug to pins on conveyor bar and guides rug into machine. Sprinkles chemical solutions on stained area to dissolve stains. Moves levers or turns handwheels to regulate roller clearance, sprayer, water force, and speed of machine to avoid damage to rugs. May soap and scrub rugs requiring special attention, using portable scrubber prior to cleaning in machine. May sort rugs according to pile before cleaning. May turn valve handle to regulate heat when machine is drier equipped. May sew rugs end-to-end, using rail-mounted sewing machine and portable sewing machine to obtain continuous rug lengths for processing through machine. May load and push handtruck to transport rugs within plant.
GOE: 06.02.18 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

361.684-010 LAUNDERER, HAND (laundry & rel.)
Washes, dries, and irons articles in hand-laundries and laundromats, using equipment, such as hand iron, and small washing and drying machines: Sorts articles on worktable or in baskets on floor to separate special washes, such as fugitives and starch work. Loads and unloads washing and drying machines, and adds detergent powder and bleach as required. Folds fluff-dry articles preparatory to wrapping. Presses wearing apparel, using hand iron [PRESSER, HAND (any industry)]. Assembles, wraps, or bags laundered articles for delivery to customer. Some hand laundries are machine-equipped and only touching-up is done by hand iron; in others, some articles, such as flatwork and shirts, are sent to larger machine-equipped plants.
GOE: 06.04.35 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

361.684-014 LAUNDRY WORKER I (any industry) alternate titles: camp-laundry operator; company laundry worker
Washes and irons wearing apparel, sheets, blankets, and other linens and clothes used by employees of logging, construction, mining, or other camp, or washes uniforms, aprons, and towels in establishments supplying employees with these linens. Uses equipment usually found in household or in small laundry.
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

361.684-018 SPOTTER I (laundry & rel.)
Identifies stains in washable cotton and synthetic garments or household linens prior to laundering and applies chemicals until stain dissolves, using brush, sponge, or bone spatula: Sorts stained articles to segregate items stained with oil, grease or blood. Applies and rubs chemicals into garment, using bone spatula, sponge or brush, until stain dissolves. Places spotted articles in net bags for return to washroom. Bleaches and washes some articles in small washing machine.
GOE: 06.02.27 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

361.685-010 CONDITIONER-TUMBLER OPERATOR (laundry & rel.) alternate titles: tumbler operator

Tends conditioner machine that semidries and untangles flatwork preparatory to ironing: Inserts small pieces directly into drum and places large pieces, such as sheets, on conveyor which feeds into conditioner where items are heated, untangled, and discharged onto conveyor leading to flatwork ironing machine.
GOE: 06.04.35 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

361.685-014 CONTINUOUS-TOWEL ROLLER (laundry & rel.) alternate titles: towel-rolling-machine operator

Tends machine that winds washed, damp, or ironed roller towels into rolls preparatory to ironing or packaging: Wraps end of towel around metal rod and inserts ends of rod into slots in machine. Swings down hinged tension gate until it latches to put tension on towel. Pushes and pulls hand-operated clutch bar to start and stop machine. Inspects towel for stains and holes as it is being wound onto roll. Secures end of wound towel with tape. Lifts rolled towel from machine. May tend machine that unrolls and folds towels.
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

361.685-018 LAUNDRY WORKER II (any industry)

Tends laundering machines to clean articles, such as rags, wiping cloths, filter cloths, bags, sacks, and work clothes: Loads articles into washer and adds specified amount of detergent, soap, or other cleaning agent. Turns valve to fill washer with water. Starts machine that automatically washes and rinses articles. Lifts clean, wet articles from washer and places them successively into wringers and driers for measured time cycles. Sorts dried articles according to identification numbers or type. Folds and places item in appropriate storage bin. Lubricates machines, using grease gun and oil can. May dissolve soap granules in hot water and steam to make liquid soap. May mend torn articles, using needle and thread. May sort and count articles to verify quantities on laundry lists. May soak contaminated articles in neutralizer solution in vat to precondition articles for washing. May mix dyes and bleaches according to formula, and dye and bleach specified articles. May be designated according to article cleaned as Bag Washer (any industry); Cloth Washer (any industry); Color-Straining-Bag Washer (textile); Oil-Rag Washer (any industry); Wiping-Rag Washer (tex. prod., nec).
GOE: 06.04.35 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

361.685-022 PATCHING-MACHINE OPERATOR (laundry & rel.)

Tends machine that patches articles, such as tablecloths, sheets, and uniforms: Positions damaged article between platens (heated irons) of machine. Selects adhesive patching material to match article to be repaired. Cuts out patch with scissors, and places patch over tear. Reads gauge on machine to ensure that ram is heated to specified temperature. Presses control button to close press and secure patch on article. May seal identification tapes on articles.
GOE: 06.04.35 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

361.686-010 WASHING-MACHINE LOADER-AND-PULLER (laundry & rel.)

Loads and unloads washing machines in laundry: Pushes handtruck containing soiled laundry from marking and classifying department to washing machine and loads articles into machine. Removes washed laundry from machine and places in extractor baskets. May lift loaded extractor baskets, using power hoist. May place baskets in extractor and start extractor. May be known according to task performed as Puller (laundry & rel.); Washer Helper, Machine (laundry & rel.); Washing-Machine Loader (laundry & rel.) I.
GOE: 06.04.35 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

361.687-010 ASSEMBLER, WET WASH (laundry & rel.) alternate titles: net checker-hanger

Reassembles washed laundry according to lot number or individual customer's bundles preparatory to subsequent processing, such as tumbling, starching, or ironing: Compares pin number on nets of laundry to numbers on laundry ticket and hangs nets in bins, or slides key-tag onto key-tag holder to assemble lots. Counts key-tags on holder or compares count of nets in bin to count of pin numbers written on laundry ticket to verify completed assembly. Loads assembled lots in basket trucks for delivery to other work stations.
GOE: 05.09.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

361.687-014 CLASSIFIER (laundry & rel.) alternate titles: assorter, laundry; separator; soiled linen distributor; sorter, laundry articles

Sorts laundry into lots, such as flatwork, starchwork, and colored articles prior to washing or ironing: Places sorted articles in bins, nets, or baskets, or onto conveyor belt. May weigh flatwork and record weight on laundry ticket. May affix customer's identification mark on articles or fasten identifying pin to nets.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 78

361.687-018 LAUNDRY LABORER (laundry & rel.) alternate titles: bundle clerk

Prepares laundry for processing and distributes laundry, performing any combination of following duties: Opens bundles of soiled laundry. Places bundles onto conveyor belt or drops down chute for distribution to marking and classification sections. Weighs laundry on scales and records weight on tickets. Removes bundles from conveyor and distributes to workers, using handtruck. Fastens identification pins or clips onto laundry to facilitate subsequent assembly of customers' orders. Sorts net bags containing clean wash according to customers' identification tags. Sorts empty net bags according to color and size. Collects identification tags from lots of laundered articles for reuse. Moistens clean wash preparatory to ironing. Operates power hoist to load and unload washing machines and extractors. Stacks linen supplies on storage room shelves. Unloads soiled linen from trucks. May be designated according to duties performed as Bundle Weigher (laundry & rel.); Chute Worker (laundry & rel.); Clipper (laundry & rel.); Linen-Supply-Room Worker (laundry & rel.); Net Sorter (laundry & rel.). May be designated: Pin Sorter And Bagger (laundry & rel.); Pin Worker (laundry & rel.); Washing-Machine Loader (laundry & rel.) II.
GOE: 06.04.35 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

361.687-022 LINEN GRADER (laundry & rel.)

Grades laundered towels and similar linens according to quality, condition, and kind of item. Ties them into bundles of specified size or number of articles and records contents of each bundle. Stores bundles in bins for delivery to customers of linen-rental service.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

361.687-026 SHAKER, WEARING APPAREL (laundry & rel.)

Shakes out semidry wearing apparel to prepare it for ironing, sorting, or folding. Inspects articles for tears or missing buttons, and routes damaged articles to repair department. Sorts, folds, and stacks articles on handtrucks or hangs them on moving conveyor. May starch shirt collars and cuffs.
GOE: 06.04.35 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

361.687-030 WASHER, HAND (laundry & rel.)

Washes articles, such as curtains, table linens, and lingerie by hand: Soaps and rubs articles, and rinses them in chemical solutions and clear water. Extracts excess moisture with hand wringer or tends small extractor [EXTRACTOR OPERATOR (any industry)]. Hangs articles on racks to dry. May immerse articles in tint or dye solutions to restore color. May operate small machines to wash articles. May wash and card blankets.
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

362 DRY CLEANING OCCUPATIONS

This group includes occupations concerned with washing garments, furs, hats, rugs, and other household furnishings with cleaning solvents, in drycleaning plants. Includes washing unusually soiled articles with water, which may or may not be preparatory to washing them with solvents.

362.381-010 SPOTTER II (laundry & rel.)

Identifies stains in wool, synthetic, and silk garments and household fabrics and applies chemical solutions to remove stains, determining spotting procedures on basis of type of fabric and nature of stain: Spreads article on worktable and positions stain over vacuum head or on marble slab. Sprinkles chemical solvents over stain and pats area with brush or sponge until stain is removed. Applies chemicals to neutralize effect of solvents. Sprays steam, water, or air over spot to flush out chemicals and dry garment. Applies bleaching powder to spot and sprays with steam to remove stains from certain fabrics which do not respond to other cleaning solvents. May mix bleaching agent with hot water in vats and soak material until bleached. May operate drycleaning machine. May be designated according to type of material spotted as Silk Spotter (laundry & rel.); Wool Spotter (laundry & rel.).
GOE: 06.02.27 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

362.382-010 DRY-CLEANER APPRENTICE (laundry & rel.) alternate titles: dry-cleaning-machine-operator apprentice

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

362.382-014 DRY CLEANER (laundry & rel.) alternate titles: dry-cleaning-machine operator

Operates dry cleaning machine to clean garments, drapes, and other materials, utilizing knowledge of cleaning processes, fabrics, and colors: Sorts articles, places lot of sorted articles in drum of dry cleaning machine. Fastens cover and starts drum rotating. Turns or pushes valves, levers, and switches to admit cleaning solvent into drum. Adds liquid soap or chemicals to facilitate cleaning process. Tends extractor that removes excess cleaning solvent from articles [EXTRACTOR OPERATOR (any industry) 581.685-038]. Tends tumbler that dries articles and removes odor of solvent from articles [TUMBLER OPERATOR (laundry & rel.) 369.685-034]. Opens valves of dry cleaning machine to drain dirty solvent into filter tank. Adds chemicals to solvent to facilitate filtration, and starts electric pumps, forcing solvent through filters to screen lint, dirt, and other impurities. Pulls sludge box from bottom of tank to remove sludge. Starts electric pumps and turns valves to operate distilling system that reclaims dirty solvent. May operate dry cleaning machine that automatically extracts excess cleaning solvent from articles. May clean by hand articles that cannot be cleaned by machine because of amount of soil on article or delicacy of fabric [DRY CLEANER, HAND (laundry & rel.) 362.684-010]. May add chemicals to dry cleaning machine to render garments water repellant. May spot articles [SPOTTER (laundry & rel.) II 362.381-010].
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 81

362.684-010 DRY CLEANER, HAND (laundry & rel.)

Cleans, by hand, articles, such as garments, drapes, lampshades, and leather goods that require individual treatment or are too delicate for machine cleaning:

Determines whether article will be cleaned with water or drycleaning solvents. Determines work aids to use, such as cloths, brushes, or sponges. Immerses articles in water or cleaning solvent, or dips brush or sponge into liquid and rubs article until clean. Observes work methods to ensure that articles are not damaged. Rinses and dries cleaned article. May bleach articles, such as draperies and bedspreads, to strip articles of color or discoloration.
GOE: 06.04.35 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

362.684-014 FUR CLEANER (laundry & rel.) alternate titles: fur drycleaner; furrier; sawdust-machine operator
Cleans fur pieces and garments by hand or machine, using brushes, pads, sawdust, corncob dust, and cleaning fluids, determining procedure and type of cleaning agent from knowledge of difference in dyed, processed, or natural furs: Examines fur for damage and to identify type of fur. Cleans furs, using either of following methods: (1) rubbing lining of garment and brushing collar, cuffs, and soiled areas, using pad and brush dipped in cleaning solvent or (2) placing furs in drum of cleaning machine containing treated sawdust or corncob dust. Removes sawdust or corncob dust from cleaned garments, using compressed air line nozzle or rotating drum. Dries fluid-cleaned garments, using extractor and either drying cabinet or tumbler drier. Beats or rubs fur with rattan or bamboo stick to fluff fur. May spray glazing compound on fur and brush by hand. May wash fur garment linings. May iron fur.
GOE: 06.02.27 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

362.684-018 FUR CLEANER, HAND (laundry & rel.) alternate titles: fur dry-cleaner, hand
Cleans fur pieces and fur garments, by hand, that are too delicate to be cleaned by machine: Brushes fur pieces with handbrush dipped in cleaning fluid. Places garment or piece in box of sawdust or corncob dust and rubs dust through fur with hands to remove moisture and further clean fur. Removes cleaning dust from furs with electric blower. May brush or spray glazing compound on furs [FUR GLAZER (fur goods; laundry & rel.)].
GOE: 06.04.35 STRENGTH: L GED: R3 M1 L2 SVP: 5 DLU: 77

362.684-022 FURNITURE CLEANER (laundry & rel.) alternate titles: dry cleaner, furniture, hand; furniture shampooer
Cleans upholstered furniture in plant or on customer's premises, using vacuum cleaner, brush, sponge, drycleaning fluids, or detergent solutions: Cleans loose dust and dirt from furniture, using vacuum cleaner. Applies cleaning solutions selected according to stains and pats or rubs stained areas with brush or sponge to remove stains. Scrubs upholstery with brush and drycleaning solvents or detergent solutions and water to clean upholstery. Rubs leather or plastic surfaces with oiled cloth and buffs with cloth or hand buffer to restore softness and luster. May spray upholstery, using spray gun and solutions such as stain repellent or plastic fluid which reduces soil collection. May polish wooden parts of furniture.
GOE: 06.04.35 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

362.684-026 LEATHER CLEANER (laundry & rel.)
Cleans suede and leather garments, such as gloves, jackets, and coats: Sorts and classifies articles into lots according to color, degree of dirtiness, and work to be performed. Brushes or sponges stains with fatty liquors (leather oils extracted from hides) to spot garment preparatory to cleaning. Observes surface and modifies pressure on brush according to type of leather to avoid damage to garment. Loads sorted articles into drum of cleaning machine. Turns valve to admit cleaning fluid into drum. Loads cleaned garments into extractor and tumbler to dry and fluff garments. May hand clean articles that are too delicate or badly soiled for machine cleaning.
GOE: 06.04.35 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

362.685-010 FEATHER RENOVATOR (laundry & rel.) alternate titles: pillow cleaner
Tends renovator machine that cleans feathers for reuse in pillows: Cuts pillow along seam and empties feathers into hopper of machine that automatically cleans and sterilizes feathers with ultra violet light or steam and hot air. Clamps new or cleaned pillow tick over discharge spout to refill pillow. Opens air valve to blow feathers into pillow tick. May sew opening in tick, using power sewing machine.
GOE: 06.04.35 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

362.686-010 DRY-CLEANER HELPER (laundry & rel.) alternate titles: cleaner assistant; cleaner helper; dry-cleaning-machine-operator helper
Assists DRY CLEANER (laundry & rel.) to dryclean or wet-clean garments, drapes, and other articles: Starts drycleaning machines and adds filter powder and activated carbon to prepare machines for work. Loads and unloads drycleaning and washing machines, extractor, and tumbler. Moves articles to and from machines, using handtruck. Scrubs articles, such as shirts and raincoats which require more vigorous action than obtained from wet-cleaning machines, using brushes and soap solution. Cleans filter on drycleaning machines. Sorts and distributes cleaned garments to pressers. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.35 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

362.686-014 RUG-CLEANER HELPER (laundry & rel.)
Performs variety of tasks to assist in cleaning rugs in plant or at customers' premises: Moves furniture to remove rug to plant or to clear room for cleaning rug on premises. Pushes vacuum cleaner over rug or feeds rug into machine equipped with rotating straps or brushes that remove dirt and dust preparatory to scrubbing. Fastens rug to pins attached to conveyor chain of automatic cleaning machine, as directed by RUG CLEANER, MACHINE (laundry & rel.). Examines or rubs cleaned rugs with towel to determine cleanliness and notifies RUG CLEANER, MACHINE (laundry & rel.) if additional cleaning is required. Rolls and wraps rug with paper or ties it with cord for delivery to customer or storage. May brush or spray sizing on back of rug. May spray rugs, carpets, and upholstered furniture with insecticides to mothproof them.
GOE: 06.04.35 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

362.687-010 GLOVE CLEANER, HAND (laundry & rel.)
Cleans leather gloves with cleaning solvents, using handbrush: Soaks gloves in vessel containing cleaning solution. Lays soaked gloves on worktable and brushes gloves with handbrush until clean, observing texture of leather and controlling pressure on brush to avoid damage (scuffing) to leather. Clips gloves to hanger or fits gloves on heated form to dry. May immerse white gloves in solution to prevent yellowing. May dye gloves or jackets, following customer's specifications.
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

362.687-014 LINING SCRUBBER (laundry & rel.) alternate titles: brusher-down; lining brusher; lining cleaner
Cleans linings of fur garments by scrubbing the linings with brush dipped in cleaning solvent.
GOE: 06.04.35 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

362.687-018 SHAVER (laundry & rel.)
Brushes surface of cleaned suede leather garments with stiff handbrush to raise nap. May position garment on form and actuate steam and air pressure to expand garment for ease in brushing.
GOE: 06.04.35 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

363 PRESSING OCCUPATIONS

This group includes occupations concerned with removing wrinkles from and restoring shape or giving finish to articles by the application of tension or pressure in commercial laundries, dry cleaning plants, and valet shops. The pressure method is usually accompanied by heat or steam.

363.681-010 SILK FINISHER (laundry & rel.)
Presses drycleaned and wet-cleaned silk and synthetic fiber garments, using hot-head press or steamtable, puff irons, and hand iron: Operates machine presses to finish those parts that can be pressed flat and completes other parts of garments by pressing with hand iron. Finishes parts difficult to reach, such as flounces, by fitting parts over puff irons. Finishes velvet garments by steaming on buck of hot-head press or steamtable, and brushing pile (nap) with handbrush. Finishes fancy garments, such as evening gowns and costumes, with hand iron, applying knowledge of fabrics and heats to produce high quality finishes which cannot be obtained on machine presses. Presses ties on small pressing machine or by inserting heated metal form into tie and touching up rough places with hand iron. Finishes pleated garments, determining size of pleat from evidence of old pleat or from work order (for new garments) and presses with machine press or hand iron. May press wool fabrics requiring precision finishing. In establishments where many SILK FINISHERS (laundry & rel.) are employed may be designated according to specialty as Finisher, Hand (laundry & rel.); Form-Finishing-Machine Operator (laundry & rel.); Hot-Head-Machin Operator (laundry & rel.); Pleat Presser (laundry & rel.); Puff-Iron Operato (laundry & rel.) I; Tie Presser (laundry & rel.); Velvet Steamer (laundry & rel.)
GOE: 06.04.35 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

363.682-010 LEATHER FINISHER (laundry & rel.) alternate title presser, leather garments
Operates hot-head pressing machine to press and shape drycleaned leather suede garments: Positions garment on buck of machine and pushes buttons lower pressing head of machine onto garment. Rearranges garment on buck, peating process until pressing is completed. Brushes suede to raise nap.
GOE: 06.04.35 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

363.682-014 PRESSER, ALL-AROUND (laundry & rel.) alternate title combination presser
Operates steam pressing machine [PRESSER, MACHINE (any industr 363.682-018] or uses hand iron [PRESSER, HAND (any industry) 363.684-01 to press garments, such as trousers, sweaters, and dresses, usually in sma cleaning establishment. Presses silk garments [SILK FINISHER (laundry rel.) 363.681-010] and wool garments [WOOL PRESSER (laundry & re 363.682-018].
GOE: 06.04.35 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 80

363.682-018 PRESSER, MACHINE (any industry) alternate titles: bu presser; finisher, machine; flattening-machine operato ironer, machine; pressing machine operator; steam flatten steam presser; steam-press operator
Operates pressing machine to smooth surfaces, flatten seams, or shape a cles, such as garments, drapes, slipcovers, and hose, in manufacturing or cleaning establishments, using either of following methods: (1) Spreads artic to be pressed on buck (padded table) of machine. Pulls pressing head onto a cle and depresses pedals or presses buttons to admit steam from buck throu garments to press them and to exhaust steam from presser. Rearranges artic

on buck and repeats process until pressing is complete. (2) Positions garment on buck and depresses pedal to lower *jump iron* onto garment and to apply pressure. Pushes lever to release steam from iron. Pushes iron attached to movable arm back and forth over garment and shifts garment under iron until garment is pressed. Hangs pressed articles on wire hangers. May operate two presses simultaneously, positioning articles on one press while another article is steamed on other press. May finish pressed articles, using hand or puff irons. May tend machine that presses and shapes articles, such as shirts, blouses, and sweaters [PRESSER, FORM (any industry) 363.685-018]. May be designated according to article pressed as Coat Presser (any industry); Pants Presser (any industry); or according to fabric pressed as Silk Presser (garment) II; or according to part of garment pressed as Armhole-And-Shoulder Off-Presser (garment); Lining Presser (laundry & rel.); or according to type of machine used as Jump-Iron-Machine Presser (garment). May be designated according to article, part, type of fabric, or machine used as Band Presser (garment); Collar Fuser (garment); Form-Press Operator (laundry & rel.); Legger-Press Operator (laundry & rel.); Mushroom-Press Operator (laundry & rel.); Puff-Iron Operator (laundry & rel.) II; Shirt Finisher (garment); Topper-Press Operator (laundry & rel.); Topper-Press Operator, Automatic (laundry & rel.); Vest-Front Presser (garment); Wash-Clothes Presser (laundry & rel.); Wool Presser (laundry & rel.).
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 80

363.684-010 BLOCKER (laundry & rel.) alternate titles: boucle finisher; knitted-garment finisher; knitted-goods shaper; presser-and-blocker, knitted goods; presser-and-shaper, knitted goods

Blocks (shapes) knitted garments after cleaning: Shrinks or stretches garment by hand until it conforms to original measurements and pins garment to cover of steamtable or back of pressing machine. Applies steam to garment, as it is held in shape, by means of hand valves or foot levers. Measures and records dimensions of garments, using yardstick, cloth tape, or by making perforated outline on paper. Compares cleaned garments with recorded measurements or perforated paper and returns garments that have shrunk or stretched for reprocessing. May hang garments on forms corresponding to desired shape and saturate with steam from nozzle to block garments. May measure customer and record measurements for use in blocking customer's garments. May fold and wrap garments.
GOE: 06.02.27 STRENGTH: L GED: R3 M2 L1 SVP: 3 DLU: 77

363.684-014 HAT BLOCKER (laundry & rel.) alternate titles: hat finisher

Blocks cleaned hats to specified size and shape: Selects wooden hat block according to size and shape of hat. Mounts hat on block and holds block over steamer to soften material. Pulls hat down over block to shape crown. Places hat on form of hat-ironing machine. Depresses pedal to engage automatic hat-ironing machine. Brushes crown with melted wax to ensure retention of shape during further processing. Removes hat from block and applies sizing to brim with sponge. Inserts hat in hollow, wooden brim form. Steams or wets brim and places under heated sandbag to press and shape brim. Rubs or brushes hat to smooth nap. Applies cleaning solvent with brush or sponge to remove spots. May insert finished hats in paper bags. May wait on patrons and collect payment. May be designated according to part of hat blocked as Brim Blocker (laundry & rel.); Crown Blocker (laundry & rel.); or according to machine operated as Crown-Ironer Operator (laundry & rel.).
GOE: 06.02.27 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

363.684-018 PRESSER, HAND (any industry) alternate titles: finisher, hand; ironer, hand

Presses articles, such as drapes, knit goods, millinery parts, parachutes, garments, and slip covers, or delicate textiles, such as lace, synthetics, and silks to remove wrinkles, flatten seams, and give shape to article, using hand iron: Places article in position on ironing board or worktable. Smooths and shapes fabric prior to pressing. Sprays water over fabric to soften fibers when not using steam iron. Adjusts temperature of iron, according to type of fabric, and uses covering cloths to prevent scorching or to avoid sheen on delicate fabrics. Pushes and pulls iron over surface of article, according to type of fabric. Fits odd-shaped pieces which cannot be pressed flat over puff iron. May pin, fold, and hang article after pressing. May be designated according to article or part pressed as Coat Ironer, Hand (garment); Lining Presser (garment; laundry & rel.); Seam Presser (garment); Vest Presser (garment); or according to type of cloth pressed as Cotton Presser (garment); Silk Presser (garment) I or part pressed as: Flatwork Finisher, Hand (laundry & rel.); Piece Presser (garment); Pocket Presser (garment); Underpresser, Hand (garment); Waist Presser (garment); Wearing-Apparel Finisher, Hand (laundry & rel.).
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 80

363.685-010 PRESS OPERATOR (laundry & rel.) alternate titles: wearing-apparel presser

Tends pressing-machine (hot-head type) to press washed wearing apparel, such as uniforms, jackets, aprons, and shirts: Smooths section of garment on buck (table) of machine, and moistens dry portions of garment with wet cloth or water spray. Pushes buttons to lower pressing head of machine to press and dry garment. Rearranges garment on buck, repeating process until pressing is completed. May work as part of team and press only portion of garment. May tend two or three presses simultaneously, positioning garment on one press while other presses are closed.
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

363.685-014 PRESSER, AUTOMATIC (laundry & rel.) alternate titles: press operator, automatic

Tends automatic pressing machine equipped with single or double upright body forms to press front, yoke, and back of shirts, coats, and other garments: Fits garment on buck (table) and pulls lever to clamp neckband of garment to buck. Lowers pressing head to iron yoke. Depresses pedal to clamp tailband in position on buck, and release pressing head to raised position. Presses control buttons that rotate dressed buck into pressing cabinet for automatic ironing of front and back of garment. May pull sleeves over forms and shift levers to move forms into pressing cabinet for ironing. May finish one type of garment, such as duck or linen coats. May be designated according to type of garment pressed as Shirt Presser, Automatic (laundry & rel.); Pants Presser, Automatic (laundry & rel.).
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

363.685-018 PRESSER, FORM (any industry) alternate titles: blocker; pressing-machine operator

Tends machine that presses and blocks (shapes) garments, such as blouses, coats, dresses, shirts, and sweaters in manufacturing or drycleaning establishment: Selects pressing form (dummy) according to shape of garment. Positions form on holder over steaming device, expands or contracts form according to size of garment, and inserts pin into slot to lock form. Pulls garment over form. Turns dial to regulate steam pressure according to type of material pressed. Depresses pedals that activate steam and air to press, block, and dry garment. Removes garment from form and lays garment on table.
GOE: 06.04.35 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

363.685-022 PRESSER, HANDKERCHIEF (laundry & rel.) alternate titles: handkerchief ironer

Tends machine that fluffs and irons flatwork articles, such as handkerchiefs and napkins: Dumps handkerchiefs from net into door-hopper of fluffer unit to condition for ironing. Places fluffed handkerchief on pad of machine and presses pedal to clamp edge. Pulls opposite edge to straighten and square handkerchief on pad. Pulls lever to revolve pad under steam chest to iron handkerchief and rotate second press in position. Removes handkerchief. May operate machine with sock attachment to press socks. May fold handkerchief and place in bag with identification tag. May tie bundles of handkerchiefs with paper ribbon.
GOE: 06.04.35 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

363.685-026 SHIRT PRESSER (laundry & rel.)

Performs any combination of following tasks in conjunction with other workers to finish and fold shirts: Places collar, cuffs, and yoke on curved, padded forms of pressing machine. Pushes button or moves lever to lower pressing head and press shirt parts. Pulls sleeves of shirt over heated form to finish, or pulls sleeve over padded forms and presses button to insert forms into cabinet to iron sleeves. Lays back of shirt on buck (table) of pressing machine. Depresses pedal or pushes button to lower pressing head onto shirt. Drapes shirt over form and pushes buttons to rotate form into steam cabinet to press shirt bosom. Folds finished shirts around piece of cardboard on folding board or on folding machine. Finishes detached collars by feeding collars into equipment for dampening, shaping, and pressing. May be designated according to part of garment ironed as Body Presser (laundry & rel.); Bosom Presser (laundry & rel.); Shirt-Collar-And-Cuff Presser (laundry & rel.); Shirt Folder (laundry & rel.) II; Yoke Presser (laundry & rel.).
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

363.686-010 FLATWORK FINISHER (laundry & rel.)

Feeds laundered flatwork articles, such as sheets, pillowcases, tablecloths, and napkins into machine that automatically spreads and presses finished articles: Shakes wrinkles and folds from semidry flatwork. Lays edge of flatwork articles on feeder roller that conveys articles into machine, shaking, smoothing, and guiding by hand during ironing process to prevent folds and wrinkles. Folds flatwork pieces discharged from machine, and places articles on table for assembly. Rejects faulty articles for reprocessing. May be designated according to operation performed as Flatwork Catcher (laundry & rel.); Flatwork Feeder (laundry & rel.); Flatwork Folder (laundry & rel.); Shaker, Flatwork (laundry & rel.).
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

363.687-010 GLOVE FORMER (glove & mit.; laundry & rel.) alternate titles: glove finisher; glove presser; glove turner and former; ironer; layer-off

Pulls gloves over heated, hand-shaped form and smooths with hands, cloth, or brush to shape and press gloves. Presses thick portion of heavy gloves by beating finger tips and seams with wooden block. May smooth glove between fingers (crotch) by pulling rake (pronged bar) over gloved form. May examine glove while pressing to detect defects. May turn seams inside [GLOVE TURNER (glove & mit.)]. May sew ripped seams and small tears by hand. May apply chemical solution and rub gloves with cloth to remove stains. May apply chemical or ready-mixed tint with cloth to restore original color to gloves.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 3 DLU: 77

363.687-014 IRONER, SOCK (laundry & rel.) alternate titles: sock-and-stocking ironer; sock drier; sock folder

Pulls socks and stockings over heated metal forms to dry and finish them. Folds and stacks the ironed socks and stockings. May cover small hole with adhesive cloth patch and apply heat to secure patch to fabric of sock.

GOE: 06.04.35 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

363.687-018 PUFF IRONER (laundry & rel.) alternate titles: baller; puffer

Slides material back and forth over heated, metal, ball-shaped form to smooth and press portions of garments that cannot be satisfactorily pressed with flat presser or hand iron. May use hand iron to complete pressing of garment.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

363.687-022 STRETCHER-DRIER OPERATOR (laundry & rel.) alternate titles: carder, blankets; curtain drier; curtain framer; curtain stretcher; stretcher operator

Stretches and dries household articles, such as blankets, curtains, and linen tablecloths that require special treatment to protect delicate fabrics and retain desired measurements, using any of following methods: (1) Attaches article to projecting wires of adjustable stretcher and pushes, or rotates frame on locking pivot, to position article in drying cabinet. (2) Attaches curtains or blankets to horizontal frame mounted over steampipes and turns valve to allow steam to heat pipes and dry articles. (3) Adjusts levers to clamp and stretch drapes and comforts in horizontal frame of drapery former. May card (brush) blankets with wire-bristled handbrush to raise nap or feed blankets into carding machine. May touch-up (press) bindings and ruffles with hand iron. May guide ruffles of curtains through grooved, heated rollers to fluting machine that press fluting (grooves) in fabric. May fold and stack articles.
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

364 DYEING AND RELATED OCCUPATIONS

This group includes occupations concerned with changing the color of articles by means of dyes. Involves knowledge of composition of textiles being dyed and of reagents, such as acids, alkalies, soap and dyes, and their effect on textiles.

364.361-010 DYER (laundry & rel.) alternate titles: sample dyer

Dyes articles, such as garments, drapes, and slipcovers in kettles or dyeing machines, and mixes dyes and chemicals according to standard formulas or by matching customers' samples against color cards that provide formulas: Examines garment to identify fabric and original dye by sight, touch, or by testing sample with fire or chemical reagent. Computes and weighs out powdered dye, oil, and acids, following formulas. Dissolves dye in boiling water and tests dye on swatch of fabric. Adds dyes to water until desired color is produced. Immerses garment in solution and stirs with stick, or dyes garment in rotary-drum or paddle-dyeing machine. Removes or directs DYER HELPER (laundry & rel.) to remove garments from kettle or machine, and rinses them in water and acetic acid solution to remove excess dye and to fix colors. Directs DYER HELPER (laundry & rel.) in operation of extractor and drier. May mix chemicals to make bleaching bath, and immerse garments in bath before dyeing to remove original colors. May use spray gun to spray dye onto garments.
GOE: 05.05.16 STRENGTH: M GED: R4 M3 L2 SVP: 7 DLU: 77

364.361-014 RUG DYER I (laundry & rel.)

Dyes rugs to match sample color, basing work procedure on knowledge of properties of bleaching agents and dyes, and on type, construction, condition, and colors of rug: Measures amounts of bleaches and dyes and mixes components with boiling water in vats. Immerses rug in bleaching bath to strip colors and in color bath to dye rug. May loop rug around reel that revolves rug in dye bath.
GOE: 05.05.16 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 77

364.381-010 PAINTER, RUG TOUCH-UP (laundry & rel.)

Touches up worn and faded spots on cleaned rugs, using oil paint to restore color and contour of original pattern: Examines rug to determine color to apply. Selects matching paint and works paint into pile of rug pattern with stylus. May use inks instead of paints. May mix colors to attain matching color and shade.
GOE: 01.06.03 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 77

364.684-010 RUG DYER II (laundry & rel.)

Dyes rugs on customers' premises, using spray gun and brushes: Mixes powdered dye with water according to prescribed formula. Sprays or brushes rugs with prepared solution to remove stains. Applies dye to rugs with spray gun, electrically rotated brush, and handbrushes.
GOE: 05.10.07 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

364.684-014 SHOE DYER (personal ser.) alternate titles: shoe tinter

Dyes or tints shoes for customers of shoe repair or shoe shining shops: Inserts shoetree or stuffs paper into shoe to stiffen shoe upper, forming smooth working surface on shoe. Cleans shoes with acetone, alcohol, water, or other solutions to remove dirt, dye, and grease, using brushes, cloths, and sponges. Selects prepared dye or mixes dyes to match shade specified by instructions or color chart. Applies coat of dye or tint onto shoe upper, using spray gun or swab. Ignites dye on shoe to drive dye into leather.
GOE: 05.12.14 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

364.684-018 SPRAYER, LEATHER (laundry & rel.) alternate titles: spray dyer

Sprays dyes on leather articles, such as gloves and jackets, to restore original color, using spray gun: Selects suede or leather dyes to match color of garment and fills spray gun container with dye. Places article on dress form and sprays dye evenly over surface. Hangs finished garments on line to dry. Brushes (buffs) suede garments with handbrush to raise nap. Sprays some garments with water-repelling compounds. May prepare dye solutions by blending basic colors to obtain specified hue.
GOE: 05.12.14 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

364.687-010 DYER HELPER (laundry & rel.) alternate titles: dyer assistant; dye-room helper

Performs any combination of following tasks in dyeing textile products, such as garments, rugs, and drapes: Loads and unloads dyeing machines, extractor, and tumbler. Scrubs rugs with handbrush, soap, and water prior to dyeing. Bleaches articles, under direction of DYER (laundry & rel.), to strip them of original colors preparatory to dyeing by immersing articles in vat. May spread rug over steamtable and turn valves to admit steam through table and into rug, when dyeing rugs.
GOE: 06.04.35 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

364.687-014 RUG-DYER HELPER (laundry & rel.)

Performs any combination of following duties to dye and dry carpets and rugs: Sews scrap material onto odd shaped rugs to facilitate handling during dyeing process. Hangs rug over roller of dyeing machine and stitches ends together with needle and twine so that rug can be immersed in solution when roller is turned. Observes rug during dyeing process and keeps rug straight on roller. Lifts rug with power hoist to drain off excess solution. Moves rug to washing platform, using handtruck. Washes rug, using water hose to remove excess dye. Places rug in extractor or hangs rug on pole in drying room. Rolls dry rug and carries or transports rug to loading area, using handtruck. May remove dust from rug before dyeing process, using rug dusting machine or hand vacuum cleaner.
GOE: 05.12.14 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

365 SHOE AND LUGGAGE REPAIRER AND RELATED OCCUPATIONS

This group includes occupations concerned with resoling, reheeling, and otherwise repairing shoes. Includes repair and renovation of hand luggage, such as handbags, briefcases, golf club bags, and hatboxes, and also trunks and other heavy luggage made of leather, plastic, fiber, and other materials.

365.131-010 SHOE-REPAIR SUPERVISOR (personal ser.) alternate titles: rehabilitation technician

Supervises and coordinates activities of workers in repairing and refinishing shoes: Inspects donated new and used shoes to determine feasability of repair or saleability. Trains subordinates and handicapped individuals in job duties of SHOE REPAIRER (personal ser.). Performs periodic performance evaluations. Performs duties as described under SHOE REPAIRER (personal ser.).
GOE: 05.05.15 STRENGTH: L GED: R3 M1 L1 SVP: 7 DLU: 77

365.361-010 LUGGAGE REPAIRER (any industry) alternate titles: hand luggage repairer

Repairs and renovates worn or damaged luggage made of leather, fiber, and other materials: Sews rips by hand or machine, inserts and repairs linings, and replaces locks, catches, straps, buckles, corner protectors, and other parts to repair all types of hand luggage. Repairs and reconditions trunks and other heavy luggage, constructing and gluing together frame, cutting and bending fiberboard pieces together, and riveting on locks, catches, corner protectors, and other parts. May construct leather articles, such as purses, wallets, and briefcases, ordered specially by customers. May specialize in repairing trunks and other heavy luggage and be designated Trunk Repairer (any industry).
GOE: 05.10.01 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

365.361-014 SHOE REPAIRER (personal ser.) alternate titles: cobbler; shoemaker

Repairs or refinishes shoes, following customer specifications, or according to nature of damage, or type of shoe: Positions shoe on last and pulls and cuts off sole or heel with pincers and knife. Starts machine, and holds welt against rotating sanding wheel or rubs with sandpaper to bevel and roughen welt for attachment of new sole. Selects blank or cuts sole or heel piece to approximate size from material, using knife. Brushes cement on new sole or heel piece and on shoe welt and shoe heel. Positions sole over shoe welt or heel piece on shoe heel and pounds piece, using machine or hammer, so piece adheres to shoe; drives nails around sole or heel edge into shoe; or guides shoe and sole under needle of sewing machine to fasten sole to shoe. Trims sole or heel edge to shape of shoe with knife. Holds and turns shoe sole or heel against revolving abrasive wheel to smooth edge and remove excess material. Brushes edge with stain or polish and holds against revolving buffing wheels to polish edge. Nails heel and toe cleats to shoe. Restitches ripped portions or sews patches over holes in shoe uppers by hand or machine. Dampens portion of shoe and inserts and twists adjustable stretcher in shoes or pull portion of moistened shoe back and forth over warm iron to stretch shoe. May build up portions of shoes by nailing, stapling, or stitching additional material to shoe sole to add height or make other specified alterations to orthopedic shoes. May repair belts, luggage, purses, and other products made of materials, such as canvas, leather, and plastic. May quote charges, receive articles, and collect payment for repairs [SERVICE-ESTABLISHMENT ATTENDANT (laundry & rel.; personal ser.) 369.477-014].
GOE: 05.05.15 STRENGTH: L GED: R3 M2 L1 SVP: 6 DLU: 82

365.674-010 SHOE-REPAIRER HELPER (personal ser.)

Assists SHOE REPAIRER (personal ser.) to repair shoes by any combination of following tasks: Rips worn soles and heels from shoes, using handtools. Tacks new soles and heels in place and trims excess leather, using knife or revolving trimmer. Sands and finishes sole edges by holding against sanding rollers and revolving metal disk. Shines, stains, and dyes shoes. May sell merchandise, such as shoestrings, polishes, and other accessories. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 05.05.15 STRENGTH: L GED: R2 M2 L1 SVP: 4 DLU: 77

366 BOOTBLACKS AND RELATED OCCUPATIONS

This group includes occupations concerned with cleaning and polishing shoes.

366.677-010 SHOE SHINER (personal ser.) alternate titles: bootblack; boot polisher; shoe polisher

Cleans and polishes footwear for customers: Removes surface dirt, using brush. Removes grime and old polish or wax from leather footwear, using brush or sponge dipped in cleaning fluid or soapy water. Applies coating of polish by hand or using dauber, and polishes leather, using brushes and cloths. Buffs buck or suede footwear with sandpaper or wire brush to clean areas or raise nap. Applies liquid dressing or dry wax by hand or dauber, and brushes surface to remove excess. Applies liquid dressing to fabric areas of footwear to restore appearance of cloth. Coats edges of sole and heel with sole dressing, using dauber or sponge. May dye or tint footwear [SHOE DYER (personal ser.)]. May brush lint from patron's clothing, using whiskbroom. May assist customers with wraps. May sweep and mop floors, dust and polish furnishings, and wash windows.

GOE: 09.05.07 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

369 APPAREL AND FURNISHINGS SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with improving appearance of, and repairing clothing, furnishings, and accessories.

369.137-010 SUPERVISOR, DRY CLEANING (laundry & rel.)

Supervises and coordinates activities of workers engaged in drycleaning and pressing wearing apparel and household articles, such as drapes, blankets, and linens: Determines standards and rates of production in accordance with company policy, type of equipment, and work load. Assigns duties to workers. Observes progress of work and transfers or hires new employees to maintain production. Confers with workers to resolve problems, complaints, and grievances. Confers with company officials and sellers of materials and equipment to plan improved methods. Reviews production and accounting records to determine cost levels of operation. Trains or assigns new employees to experienced workers for training. May supervise workers engaged in cleaning and pressing garments in hotel establishment and be known as Valet Manager (hotel & rest.).

GOE: 06.04.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

369.137-014 SUPERVISOR, RUG CLEANING (laundry & rel.)

Supervises and coordinates activities of workers engaged in repair, storage, and cleaning of rugs and carpets. Examines rug to determine cleaning method. May repair rugs [RUG REPAIRER (laundry & rel.)]. May measure and cut rugs to customer's specifications. Performs duties as described under SUPERVISOR (any industry) Master Title.

GOE: 05.12.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

369.167-010 MANAGER, LAUNDROMAT (laundry & rel.)

Manages coin-operated drycleaning and laundering business: Plans and implements hours of operations, types of services to be provided, and charges for services. Orders machines, equipment, and supplies for operation. Hires, trains, and supervises personnel to provide laundry and drycleaning services. Records and analyzes business data to determine performance record. May clean and perform repair services on machines.

GOE: 11.11.04 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

369.367-010 FUR-STORAGE CLERK (retail trade) alternate titles: fur-vault attendant

Tags and appraises fur garments received for storage: Examines garments to determine condition and estimate value. Records description of garment, estimated value, and name and address of owner. Computes and records charges. Attaches tag to garment. May take telephone orders. May prepare application for insurance, when customer gives approval, and forward application to insurance company.

GOE: 05.09.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

369.367-014 RUG MEASURER (laundry & rel.; retail trade) alternate titles: rug-receiving clerk

Determines type of rug received for cleaning, measures it, calculates area, and records information for use in case rug is lost and to facilitate proper billing to customer. Affixes identifying tag to rug which indicates type of work to be performed. May examine rugs for stains and holes, and determine from its condition if rug will withstand cleaning. May determine repairs which should be made and contact customer concerning repairs.

GOE: 05.09.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

369.384-010 HATTER (laundry & rel.)

Cleans, blocks, trims, and makes minor repairs to hats: Cuts threads to remove linings, sweatbands, hatbands and ornaments prior to cleaning. Immerses hat in solvent and rubs hat with sponge and brush to remove soil particles and stain. Tends extractor to remove moisture from hats. Shapes hat, using hat block, size ring, hat stretcher, turn-lathe, hat ironing machine and brim pressing machine. Rubs hat with pad to obtain finished appearance. Replaces linings, sweatbands, hatbands and ornaments, using needle and thread.

GOE: 06.02.27 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 77

369.384-014 RUG CLEANER, HAND (laundry & rel.) alternate titles: carpet cleaner; rug renovator; rug scrubber; rug shampooer; rug washer

Cleans rugs with chemical solutions in plant or on customer's premises, using handbrushes or portable scrubbing machine, determining washing method according to condition of rug: Vacuums rugs to remove loose dirt. Guides scrubbing machine over rug surface or sprays rug with cleaning solution under pressure to agitate nap and loosen embedded dirt. Removes excess suds and water from rug during scrubbing operation, using vacuum nozzle or squeegee. Identifies persistent stains and selects spotting agent to remove stain according to type of fiber, dye, and stain. Rubs chemical solution into rug with handbrush until stain disappears. Rinses rug, using water hose, and hangs rug on rack to dry. Pushes pilating (pile lifting) machine over surface of dried rug to raise and fluff nap or brushes pile, using broom. Removes excess water by feeding rugs between rollers of mechanical wringer, putting rugs in extractor, or going over surface with squeegee or vacuum nozzle. Brushes, sprays, or sprinkles sizing solutions on the backs of rugs, using handbrush, spray gun, or sprinkling can. May scrub fragile or oriental rugs, using handbrush, soap, and water. May spray acetic acid or salt solution over washed rugs to prevent colors from running. May measure rugs to determine cleaning fee. May clean upholstered furniture, using sponge, brush, and cleaning solutions. May trim frayed edges of carpet and rebind carpet edges, using scissors, knife, needle, and thread. May perform rug cleaning duties as employee of establishment, such as hotel.

GOE: 06.02.27 STRENGTH: M GED: R3 M1 L2 SVP: 5 DLU: 77

369.387-010 LAUNDRY WORKER III (any industry)

Prepares soiled clothing and linen for delivery to laundry and verifies contents of returned bundles: Prepares typed forms listing soiled articles received. Ties articles in bundle for transporting to laundry. Receives returned bundles and checks contents against lists, noting and reporting shortages. Stores clean linen on shelves and issues item on presentation of soiled articles for exchange.

GOE: 05.09.03 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

369.467-010 MANAGER, BRANCH STORE (laundry & rel.)

Manages store where customers deliver and call for articles to be cleaned, laundered, and pressed and keeps records of same: Receives article from customer. Writes identifying slip or tag giving name of customer, work to be done, and date of completion. Pins or staples tag on article. Delivers finished article to customer and collects amount due. Records cash receipts and articles received and delivered. May examine article in presence of customer to advise of possible damage that might result during processing, such as shrinkage, loss of shape, and fading. May measure garments liable to shrink. May remove ornaments and sew or replace them on finished garment upon return from plant.

GOE: 09.04.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

369.477-010 CURB ATTENDANT (laundry & rel.)

Gives curb service to customers: Receives and delivers articles to customers remaining in cars outside store or plant. Writes tickets to identify and to indicate work to be done. Receives amount due for servicing articles. Opens doors for customers entering or leaving store. May perform other duties, such as sweeping and dusting store, placing garments in paper bags, and running errands.

GOE: 09.04.02 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

369.477-014 SERVICE-ESTABLISHMENT ATTENDANT (laundry & rel.; personal ser.) alternate titles: counter attendant

Receives articles, such as shoes and clothing, to be repaired or cleaned, in personal-service establishment: Examines articles to determine nature of repair and advises customer of repairs needed. Quotes prices and prepares work ticket. Sends articles to work department. Returns finished articles to customer and collects amount due. May keep records of cash receipts and articles received and delivered. May sell articles, such as cleaner, polish, shoelaces, and accessories.

GOE: 09.04.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

369.587-010 VAULT CUSTODIAN (laundry & rel.)

Receives, identifies, fumigates, and places garments in cold-storage vaults: Marks incoming garments with identification tags, tape, or by some other method, and classifies and routes garments to cleaning and repair departments. Fills pans with fumigant and seals storage vaults to fumigate incoming and stored garments. Turns on ventilating system to remove fumigating gas from vaults. Hangs garments in specified place in storage vault. Removes stored garments at customer's request. Inspects or routes garments to INSPECTOR (laundry & rel.) and sends them to delivery department. May monitor vault room humidistat and adjust refrigeration thermostat to change temperature and relative humidity in vault. May record garment identifying information on control record.

GOE: 05.09.03 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

369.677-010 SELF-SERVICE-LAUNDRY-AND-DRY-CLEANING ATTENDANT (laundry & rel.) alternate titles: attendant, coin-operated laundry; attendant, laundry-and-dry-cleaning service; washateria attendant

Assists customer to launder or dryclean clothes, or launders or drycleans clothes for customer paying for complete service, using self-service equipment: Gives instructions to customer in clothes preparation, such as weighing, sorting, fog-spraying spots, and removing perishable buttons. Assigns machine and directs customer or points out posted instructions regarding equipment operation. Weighs soiled items and calculates amount charged customer requiring complete services. Dampens garments with cleaning solvent and rubs with sponge or brush to remove spots or stains. Places clothes, cleaning material, bleach, and coins in laundering or drycleaning equipment, and sets automatic controls to clean or dry clothes. Removes clothes from equipment. Hangs, bags, folds, and bundles clothes for delivery to customer. Receives payment for service. May sell cleansing agents.

GOE: 09.04.02 STRENGTH: M GED: R3 M1 L3 SVP: 2 DLU: 77

369.684-010 FUR GLAZER (fur goods) alternate titles: fur glosser

Coats hair of fur garments with moisture or glazing compound to protect against shedding and restore glossy appearance: Fits garment over form and sprays glazing compound on garment with spray gun. Brushes, combs, or shakes garment to fluff fur. Allows garment to hang for specified period, or directs nozzle of compressed air line to dry fur. May iron fur and lining. May rub fur with stick to make hair fluffy. May tend sawdust-filled rotating drum to remove loose hairs. May trim garment section, using furrier's knife. May pull offcolored hair from fur, using tweezers.

GOE: 06.04.35 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

369.684-014 LAUNDRY OPERATOR (laundry & rel.)

Receives, marks, washes, finishes, checks, and wraps articles in laundry, performing any combination of following tasks: Classifies and marks incoming laundry with identifying code number, by hand or using machine [MARKER (laundry & rel.)]. Tends washing machine, extractor, and tumbler to clean and dry laundry. Finishes laundered articles, using hand iron, pressing machine, or feeds and folds flatwork on flatwork ironing machine. Sorts laundry and verifies count on laundry ticket [ASSEMBLER (laundry & rel.); CHECKER (laundry & rel.)]. May perform related tasks, such as mending torn articles, using sewing machine or by affixing adhesive patches. May wrap articles. May specialize in receiving and washing, or in finishing and checking, and be designated according to unit in which work is performed as Laundry Operator, Finishing (laundry & rel.); Laundry Operator, Wash Room (laundry & rel.).

GOE: 06.04.35 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

369.684-018 UMBRELLA REPAIRER (any industry)

Repairs defective umbrellas, using handtools: Replaces parts of umbrella frames, such as springs, ribs, shanks, and handles, using handtools. Sews umbrella cover to frame [UMBRELLA TIPPER, HAND (fabrication, nec)]. May repair wheels and casters on beds, carts, and similar rolling equipment [WHEEL-AND-CASTER REPAIRER (any industry)].

GOE: 05.10.01 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

369.685-010 FUR BLOWER (retail trade) alternate titles: blower

Tends equipment that fumigates and removes foreign matter from furs: Hangs furs in fumigating cabinet, pours fumigant into storage tank, and closes door. Turns switch to start blower that vaporizes and blows fumigant onto furs. Adjusts timing switch to stop fumigation process. Presses button to start ventilating system to exhaust vapors from cabinet, opens door, and removes furs. Adjusts valve on compressed air gun to regulate air pressure, according to condition or type of fur. Squeezes trigger of gun and directs stream of air on fur to remove dirt, insects, and loose fur.

GOE: 06.04.39 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

369.685-014 FUR CLEANER, MACHINE (fur goods; laundry & rel.; retail trade; wholesale tr.) alternates titles: fur beater; fur drummer; fur dry-cleaner; saw-dust machine operator

Tends drum that tumbles fur garments in dry or liquid cleaning agents to clean fur: Selects and pours liquid or drycleaning agent into drum. Places garments in drum and moves lever to start and stop drum rotation. Removes garments from drum. Dumps drycleaning agents from drum and repeats tumbling process or uses compressed air gun to remove cleaning agents from garment; or places garment in extractor to remove liquid cleaning agent. Hangs garments in heated cabinets or places in drying tumbler to dry garments. May glaze fur. May wash garment linings.

GOE: 06.04.35 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

369.685-018 FUR IRONER (laundry & rel.)

Tends fur ironing machine to remove lining wrinkles and highlight hair luster of fur garments, using either of following methods: (1) Irons lining and hair of garments, using heated hand iron to remove wrinkles from lining and produce luster on fur. (2) Positions garment on feed roll of machine. Sets temperature control of metal ironing roll according to type of fur. Depresses pedal to bring garment into contact with heated roll and guides garment under roll. Releases pedal, changes position of garment, and repeats operation to complete ironing of garment. May iron garment by hand.

GOE: 06.04.35 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

369.685-022 FUR-GLAZING-AND-POLISHING-MACHINE OPERATOR (laundry & rel.) alternate titles: fur ironer

Tends machine that combs and polishes furs, and manually applies glazing solution to restore luster: Sets thermostat to heat roller to specified temperature. Presses button to start machine and arranges garment on feed roller. Applies water or glazing solution, using hand spray gun. Depresses pedal to raise feed roller to grooved heated roller that polishes and straightens fur. Releases feed roller and rearranges garment to polish all parts. May iron lining and hair of garment to remove wrinkles and restore luster to fur, using hand iron. May polish furs only and be designated Fur-Polishing-Machine Operator (laundry & rel.).

GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

369.685-026 RUG-DRY-ROOM ATTENDANT (laundry & rel.)

Tends rug conveyor or electric powered hoist that lifts and carries rugs to drying room, using either of following methods: (1) Pulls rug ejected from washing and wringing machines into drying room. Feeds end of rug to be sized through sizing rolls to distribute sizing compound evenly over back of rug. Fastens end of rug to pins attached to poles and pushes button to hoist and suspend rugs in drying room. (2) Feeds end of rug to be sized through sizing rolls and fastens ends to pin on rug poles. Pushes button to operate conveyor which hoists and transports rug through drying room. May adjust thermostat of heaters circulating hot air through drying room. May spray sizing compound on back of rugs with spray gun. May remove dried rugs from poles and wrap or tie for delivery to customer. May tend wrapping machine which wraps rug.

GOE: 06.04.35 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

369.685-030 SHIRT-FOLDING-MACHINE OPERATOR (garment; laundry & rel.)

Tends machine that automatically folds shirts: Positions shirt on bed of machine, places button strip and collar of shirt in clamps on machine bed, and closes clamps by hand. Pushes button to lower folding blade onto shirt and actuates folding bar and plates of machine to fold body and arms of shirt around folding blade. Depresses pedal to retract folding blade and plates and open heated collar-shaping clamp. Inserts cardboard band under collar to maintain shape. May place cardboard on shirt prior to folding to strengthen folded package. May place paper bands around folded shirts and pack shirts in bags. May separate and stack shirts according to customers' markings. May insert paper cuff links in dress shirts.

GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

369.685-034 TUMBLER OPERATOR (laundry & rel.) alternate titles: drier operator; drying-machine operator; drying-tumbler operator; tumbler-drier operator

Tends machines that fluff-dry laundered articles or dry and deodorize drycleaned items: Transfers partially dried articles from extractor by hand or by use of handtruck or overhead hoist, and places articles in drum of tumbler. Turns pointer on dial of machine timer for drying cycle, according to type of fabric and weight of items being dried. Starts drum and blower. May hang delicate fabrics in heated cabinet to dry. May tend extractor [EXTRACTOR OPERATOR (any industry) 581.685-038]. May fold, stack, and bundle finished articles.

GOE: 06.04.35 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 78

369.686-010 FOLDING-MACHINE OPERATOR (laundry & rel.)

Feeds laundered towels, pillowcases, and napkins onto feeder conveyor of machine that folds, stacks, and counts flatwork. Sorts items on feedstacks according to size. Lays aside stained articles for separate feeding and ticketing. Adjusts position of gear lever to regulate speed of machine. Removes jammed articles from machine. May unload rack and transfer stacks of folded napkins to be bundled to tying machine.

GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

369.687-010 ASSEMBLER (laundry & rel.) alternate titles: distributor; matcher; subsorter

Sorts laundered or drycleaned articles, such as linens, garments, blankets, and drapes, according to customer's identification mark or tag: Reads identification symbols on mark or tag attached to clean articles. Sorts articles with similar symbols into groups. Collects items belonging to each customer from group, using customer's list of articles received to verify completeness of order. Inspects items for quality of service. May be designated according to type of article assembled as Flatwork Assembler (laundry & rel.); Wearing-Apparel Assembler (laundry & rel.).

GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 78

369.687-014 CHECKER (laundry & rel.)

Verifies number and type of laundered or dry cleaned articles by checking against customers' lists: Inspects articles for cleanliness and neatness of finish. Returns incomplete laundry bundles to bin. Folds curtains lengthwise and drapes curtains over hangers. Hangs dry cleaned garments on hangers, covering articles with paper or bags. May fill customers' orders for clean linens, such as sheets, towels, aprons, and uniforms. May wrap and load bundles onto trucks for delivery to customers. May count linen supplies returned by DRIVER, SALES ROUTE (retail trade; wholesale tr.) 292.353-010 to verify quantities shown on return list and be designated Return Checker (laundry & rel.).

GOE: 05.09.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 78

369.687-018 FOLDER (laundry & rel.)

Folds fluff-dried or pressed laundry, such as shirts, towels, uniforms, and jackets: Shakes out, smooths, folds, sorts, and stacks wash according to identification tags. Inspects pressed laundry for holes or tears, and separates defective articles for transfer to repair department. Folds laundry, preparatory to wrap-

ping, for delivery to customer. Folds pressed shirts around cardboard forms and inserts assembly in plastic bags. May attach missing buttons to articles, using button-sewing-machine or button-attaching machine. May unload tumbler. May turn socks, match pairs, and tie socks into bundles. May be designated according to type of laundry folded as Shirt Folder (laundry & rel.) I; Wearing-Apparel Folder (laundry & rel.).
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

369.687-022 INSPECTOR (laundry & rel.) alternate titles: garment examiner
Inspects garments or articles after cleaning and finishing, to verify items meet company standards: Returns articles having wrinkles, double creases, shine, spots, tears, broken seams, missing buttons, or missing belts to pressing, spotting, or repair units for correction. When examining garments to verify quality of alteration and repairs, may be designated Sewing Inspector (laundry & rel.).
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

369.687-026 MARKER (laundry & rel.) alternate titles: clothes marker; entry clerk; garment marker; receiving checker; tagger
Performs any combination of following duties in marking, sorting, and recording soiled garments, linens, and other articles received for cleaning and laundering: Opens bundle or bag and spreads articles on worktable. Examines articles and records defects, such as holes, stains, tears, and ripped seams. Compares articles with customer's listing or records by hand or by using listing-pricing machine. Affixes or marks customer-identifying symbols on soiled articles by one of following methods: (1) Adjusts numbered disks of marking machine by hand to set code number; places article or cloth tag under disks; depresses pedal or pulls lever that forces disks against article or tag to print code; pins or staples tag to article. (2) Writes code number on garment or tag with pen and waterproof ink; pins, staples, or sews tag to garment. (3) Positions garment under stapling machine and pulls lever that staples short length of tape to garment; writes identifying code on tape. (4) Presses lever of clipping machine that fastens metal clip to garment. (5) Depresses keys of marking machine that prints identifying symbol on garment. (6) Seals identification tape on article, using patching machine and adhesive tape. Routes defective articles to MENDER (any industry) 787.682-030 for repairs. Sorts articles according to color, degree of soil, and type of materials or treatment. Measures articles with yardstick or measuring tape and records measurements to ensure articles are finished to original size. Removes buttons, ornaments, and other trimmings from soiled garments and replaces buttons on cleaned garments. Places sorted articles in different colored nets or ties articles in bundles and attaches tags that indicate work to be performed, such as method of cleaning, articles to be starched or tinted, and pretreatment of stained articles. Counts finished articles for completeness of order and verifies count with plant records.
GOE: 05.09.01 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 78

369.687-030 RUG INSPECTOR (laundry & rel.)
Examines cleaned rugs to detect deficiencies, such as inadequate cleaning, failure to remove spots or stains, and faulty brushing of pile. Returns imperfect rugs to workers responsible for defects. Rolls completed rugs by hand or guides rug into rug-rolling machine. May measure and calculate areas of rugs for billing purposes.
GOE: 06.03.02 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

37 PROTECTIVE SERVICE OCCUPATIONS

This division includes occupations concerned with protecting the public against crime, fire, accidents, and acts of war.

371 CROSSING TENDERS AND BRIDGE OPERATORS

This group includes occupations concerned with guarding crossings to warn motorists and pedestrians of approaching vehicles; and opening bridges so vessels may pass.

371.362-010 DRAWBRIDGE OPERATOR (r.r. trans.) alternate titles: bridge tender
Controls railroad or highway drawbridge over waterways to permit passage of vessels: Observes approaching vessels and listens for whistle signal from vessel indicating desire to pass. Moves levers that activate traffic signals and alarms, lower gates to halt street traffic, or activate interlocking railroad signals to warn oncoming railroad trains. Starts motors of drawbridge and moves levers to raise or turn drawbridge, giving vessels passage. Signals vessels to pass through opening. Inspects drawbridge and auxiliary equipment. Cleans, oils, and greases machinery. Writes and submits maintenance work requisitions. Prepares reports of accidents occurring on or to bridge. Records name of vessels passing and number of trains or vehicles crossing bridge. May relay messages to vessels in waterway. May make repairs and adjustment to drawbridge. May be required to hold Railway Signalman Certificate or similar license.
GOE: 05.11.04 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

371.567-010 GUARD, SCHOOL-CROSSING (government ser.)
Guards street crossings during hours when children are going to or coming from school: Directs actions of children and traffic at street intersections to ensure safe crossing. Records license numbers of vehicles disregarding traffic signals and reports infractions to police. May escort children across street. May place caution signs at designated points before going on duty and remove signs at end of shift. May stop speeding vehicles and warn drivers.
GOE: 10.03.03 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

371.667-010 CROSSING TENDER (any industry)
Guards railroad crossing to warn motorists and pedestrians of approaching trains: Consults train schedules and listens for approaching trains from watchtower. Presses button to flash warning signal lights. Presses control button to lower crossing gates until train passes, and raises gate when crossing is clear. May wave flags, signs, or lanterns in emergencies.
GOE: 05.12.20 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

372 SECURITY GUARDS AND CORRECTION OFFICERS, EXCEPT CROSSING TENDERS

This group includes occupations concerned with guarding property from illegal entry, fire, and theft, and enforcing safety regulations, including the custody and discipline of prisoners.

372.137-010 CORRECTION OFFICER, HEAD (government ser.)
Supervises and coordinates activities of CORRECTION OFFICERS (government ser.): Conducts roll call of officers and issues duty assignments. Directs release or transfer of prisoners based on court order instructions. Investigates and reports causes of inmate disturbances, such as assaults, fights, and thefts. Assists subordinates with unruly inmates and other assignments. Maintains prison records and prepares reports. Reviews work records of subordinates to evaluate efficiency and suitability for assignments.
GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

372.167-010 DISPATCHER, SECURITY GUARD (business ser.)
Dispatches security personnel to client's site for private, protective-service firm: Reads posted orders to ascertain personnel requirements and notifies guards of work assignments and changes in instructions by telephone. Posts assignment information on dispatch board. Compiles and records data for dispatch, payroll, billings, and personnel records. May issue regular and special equipment to guards. May interview applicants and recommend hiring or hire guards.
GOE: 04.02.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

372.167-014 GUARD, CHIEF (any industry)
Supervises and coordinates activities of guard force of establishment, such as industrial plant, department store, or museum: Assigns personnel to posts or patrol, according to size and nature of establishment and protection requirements. Interprets security rules and directs subordinates in enforcing compliance, such as issuance of security badges, photographing of employees, and safekeeping of forbidden articles carried by visitors. Responds to calls from subordinates to direct activities during fires, storms, riots, or other emergencies. Inspects or directs inspection of premises to test alarm systems, detect safety hazards, and to ensure that safety rules are posted and enforced. Examines fire extinguishers and other safety equipment for serviceability. Reports irregularities and hazards to appropriate personnel. Cooperates with police, fire, and civil defense authorities in problems affecting establishment. May select and train subordinates in protective procedures, first aid, fire safety, and other duties. May be designated according to rank as Guard, Captain (any industry); Guard, Lieutenant (any industry); Guard, Sergeant (any industry); or according to establishment served as Plant-Protection Supervisor (any industry); Security Chief, Museum (museums).
GOE: 04.01.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

372.167-018 JAILER, CHIEF (government ser.)
Supervises and coordinates activities of jail staff: Establishes rules, regulations, and procedures to be executed by JAILERS (government ser.). Prepares work schedules and assigns duties. Reviews commitment orders of new inmates to ensure that legal requirements are met. Classifies and segregates inmates according to status, such as pretrial, under-sentence, or witness. Communicates with court officials to ensure availability of inmates for trials or hearings. Escorts inmates to courts, hospitals, and other correctional institutions. Schedules visits of medical personnel to treat inmates. Directs search of inmates and all areas for contraband. Inspects facilities for cleanliness. Selects trustees for special work assignments. Accepts and records bail and fine payments, issues receipts, and arranges for release of inmates. Prepares reports concerning inmate population and jail functions, as required by law. Writes daily activity reports for superiors. Maintains financial records for use in budget preparation. Prepares requisitions for commissary, clothing, and housekeeping supplies. Evaluates work of subordinates and takes disciplinary measures for inefficiency or violation of regulations. Maintains personnel records of subordinates.
GOE: 04.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

372.167-022 MANAGER, ARMORED TRANSPORT SERVICE (business ser.)
Plans, directs, and coordinates activities of personnel engaged in providing armored car services: Analyzes capability based on customer requirements and develops work procedures to satisfy customer needs. Assigns tasks and interprets company policies and procedures for workers. Directs workers engaged in driving armored cars, guarding money and articles in transit, sorting, and

routing money bags, and clerical activities. Confers with customer and industry representatives to evaluate company services and promote expansion. Hires and discharges workers.
GOE: 11.11.04 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

372.267-010 SPECIAL AGENT (r.r. trans.)
Guards shipments of valuables and investigates reports of theft or damage of shipments transported by railroad: Patrols railway express cars, baggage cars, and freight cars during run to guard shipments of valuables, such as money, bullion, strategic metals, or prototype machinery. Apprehends unauthorized persons and removes them from train at next stop or from railroad properties. Investigates report of theft [DETECTIVE (any industry) I]. Interviews train crew and other persons to gather information concerning theft. Cooperates with local law enforcement agencies to secure additional clues. Interviews neighbors, associates, and former employers of employment applicants to get personal and work history data. Prepares reports on findings of criminal and applicant investigations.
GOE: 04.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

372.363-010 PROTECTIVE OFFICER (government ser.) alternate titles: security inspector; security technician
Guards government installations, materials, and documents against illegal acts, such as sabotage, riot, and espionage: Patrols area on foot, horseback, automobile, or aircraft to detect and prevent unauthorized activities, using weapons or physical force as necessary. Searches installation for explosive devices and notifies bomb disposal unit. Stands guard during secret and hazardous experiments. Performs routine police duties within installation. May travel throughout United States and foreign countries.
GOE: 04.02.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

372.367-010 COMMUNITY SERVICE OFFICER, PATROL (government ser.)
Patrols city housing projects and community parks to prevent crimes, quell disturbances, and maintain civic harmony: Travels assigned area on foot or motor scooter to observe civil activity and maintain security. Confers with individuals involved in disturbances to determine cause and course of action to take. Attempts to resolve disputes and calls POLICE OFFICER (government ser.) I in situations requiring arrest authority. Refers individuals and families to social agencies for assistance in resolving social or health problems.
GOE: 04.02.03 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

372.367-014 JAILER (government ser.) alternate titles: jail keeper; turnkey
Guards prisoners in precinct station house or municipal jail, assuming responsibility for all needs of prisoners during detention: Locks prisoner in cell after searching for weapons, valuables, or drugs. Serves meals to prisoner and provides or obtains medical aid if needed. May prepare arrest records identifying prisoner and charge assigned. May question prisoner to elicit information helpful in solving crime. May prepare meals for self and prisoner. May distribute commissary items purchased by inmates, such as candy, snacks, cigarettes, and toilet articles, and record payment on voucher. In small communities, may perform duties of SHERIFF, DEPUTY (government ser.) 377.263-010 or POLICE OFFICER (government ser.) I 375.263-014 when not engaged in guard duties.
GOE: 04.02.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 78

372.563-010 ARMORED-CAR GUARD AND DRIVER (business ser.) alternate titles: armored-car messenger
Drives armored van to transport money and valuables, and guards money and valuables during transit: Loads and carries bags of cash, coin, and other valuables into and from armored van at protective service building, bank, or customer establishment. Drives armored van along established routes to transport valuables to destination. Guards bags of money and valuables during receipt and transfer to ensure safe delivery. Issues and receives receipts from customers to verify transfer of valuables. May drive truck along established route and collect coins from parking meters.
GOE: 04.02.02 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

372.567-010 ARMORED-CAR GUARD (business ser.) alternate titles: armored-car messenger
Guards armored car enroute to business establishments to pick up or deliver money and valuables: Collects moneybags, receipts, daily guide sheet, and schedule from VAULT WORKER (business ser.). Guards money and valuables in transit to prevent theft. Records information, such as number of items received, destination, contents of packages, and delivery time at scheduled stops, on daily guide sheet. Deposits moneybags, receipts, daily guide sheet, change box, and money with cashiering department.
GOE: 04.02.02 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

372.567-014 GUARD, IMMIGRATION (government ser.)
Guards aliens held by immigration service pending further investigation before being released or deported: Takes into custody and delivers aliens to designated jail, juvenile detention facility, hospital, court, claim's office, immigration facility, or other areas to transact business. Escorts aliens departing or arriving by airplane, train, car, ship, or bus. Prepares and maintains records relating to detention, release, transportation of alien, and completes application for travel documents. May prepare related correspondence. May be required to travel throughout nation and foreign countries.
GOE: 04.02.01 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

372.667-010 AIRLINE SECURITY REPRESENTATIVE (air trans.) alternate titles: customer security clerk; flight security specialist; screening representative
Screens passengers and visitors for weapons, explosives, or other forbidden articles to prevent articles from being carried into restricted area of air terminal, performing any combination of following tasks: Greets individuals desiring to enter restricted area and informs them that they must be screened prior to entry. Asks individual to empty contents of pockets into tray. Examines contents of tray for forbidden articles and directs individual to pass through metal-detecting device. Asks individual to remove metal articles from person if metal detector signals presence of metal, or uses hand held metal detector to locate metal item on person. Places carry-on baggage or other containers onto x-ray device, actuates device controls, and monitors screen to detect forbidden articles. Requests owner to open baggage or containers when x ray shows questionable contents. Returns baggage and tray contents to individual if no forbidden articles are detected. Notifies GUARD, SECURITY (any industry) if forbidden articles are discovered or detector equipment indicates further search is needed. May turn on power and make adjustments to equipment. May perform duties of GUARD, SECURITY (any industry). May screen boarding passengers against Federal Aviation Administration approved profile of aircraft hijackers. May make reports.
GOE: 04.02.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

372.667-014 BODYGUARD (personal ser.)
Escorts individuals to protect them from bodily injury, kidnapping, or invasion of privacy. May perform other duties, such as receiving and transcribing dictation or driving motor vehicle to transport individuals to disguise purpose of employment.
GOE: 04.02.02 STRENGTH: GED: R2 M1 L2 SVP: 3 DLU: 77

372.667-018 CORRECTION OFFICER (government ser.) alternate titles: guard
Guards inmates in penal institution in accordance with established policies, regulations, and procedures: Observes conduct and behavior of inmates to prevent disturbances and escapes. Inspects locks, window bars, grills, doors, and gates for tampering. Searches inmates and cells for contraband articles. Guards and directs inmates during work assignments. Patrols assigned areas for evidence of forbidden activities, infraction of rules, and unsatisfactory attitude or adjustment of prisoners. Reports observations to superior. Employs weapons or force to maintain discipline and order among prisoners, if necessary. May escort inmates to and from visiting room, medical office, and religious services. May guard entrance of jail to screen visitors. May prepare written report concerning incidences of inmate disturbances or injuries. May be designated according to institution as Correction Officer, City Or County Jail (government ser.); Correction Officer, Penitentiary (government ser.); Correction Officer, Reformatory (government ser.). May guard prisoners in transit between jail, courtroom, prison, or other point, traveling by automobile or public transportation and be designated Guard, Deputy (government ser.).
GOE: 04.02.01 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 86

372.667-022 FLAGGER (construction) alternate titles: traffic control signaler
Controls movement of vehicular traffic through construction projects: Discusses traffic routing plans, and type and location of control points with superior. Distributes traffic control signs and markers along site in designated pattern. Directs movement of traffic through site, using sign, hand, and flag signals. Warns construction workers when approaching vehicle fails to heed signals to prevent accident and injury to workers. Informs drivers of detour routes through construction sites. Records license number of traffic control violators for police. May give hand marker to last driver in line up of one-way traffic for FLAGGER (construction) at opposite end of site, signaling clearance for reverse flow of traffic.
GOE: 05.12.20 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

372.667-026 FLAGGER (amuse. & rec.)
Signals with checkered flag when first race horse crosses starting line after release from starting gate to notify racing timer when to start timing race.
GOE: 12.01.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

372.667-030 GATE GUARD (any industry) alternate titles: gatekeeper; guard; watch guard, gate
Guards entrance gate of industrial plant and grounds, warehouse, or other property to control traffic to and from buildings and grounds: Opens gate to allow entrance or exit of employees, truckers, and authorized visitors. Checks credentials or approved roster before admitting anyone. Issues passes at own discretion or on instructions from superiors. Directs visitors and truckers to various parts of grounds or buildings. Inspects outgoing traffic to prevent unauthorized removal of company property or products. May record number of trucks or other carriers entering and leaving. May perform maintenance duties, such as mowing lawns and sweeping gate areas. May require permits from employees for tools or materials taken from premises. May supervise use of time clocks for recording arrival and departure of employees [TIMEKEEPER (clerical) 215.362-022]. May answer telephone and transfer calls when switchboard is closed. When stationed at entrance to restricted area, such as explosives shed or research laboratory, may be designated Controlled-Area Checker (any industry).
GOE: 04.02.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 80

372.667-034 GUARD, SECURITY (any industry) alternate titles: patrol guard; special police officer; watchguard

Guards industrial or commercial property against fire, theft, vandalism, and illegal entry, performing any combination of following duties: Patrols, periodically, buildings and grounds of industrial plant or commercial establishment, docks, logging camp area, or work site. Examines doors, windows, and gates to determine that they are secure. Warns violators of rule infractions, such as loitering, smoking, or carrying forbidden articles, and apprehends or expels miscreants. Inspects equipment and machinery to ascertain if tampering has occurred. Watches for and reports irregularities, such as fire hazards, leaking water pipes, and security doors left unlocked. Observes departing personnel to guard against theft of company property. Sounds alarm or calls police or fire department by telephone in case of fire or presence of unauthorized persons. Permits authorized persons to enter property. May register at watch stations to record time of inspection trips. May record data, such as property damage, unusual occurrences, and malfunctioning of machinery or equipment, for use of supervisory staff. May perform janitorial duties and set thermostatic controls to maintain specified temperature in buildings or cold storage rooms. May tend furnace or boiler. May be deputized to arrest trespassers. May regulate vehicle and pedestrian traffic at plant entrance to maintain orderly flow. May patrol site with guard dog on leash. May watch for fires and be designated Fire Patroller (logging). May be designated according to shift worked as Day Guard (any industry); area guarded as Dock Guard (any industry); Warehouse Guard (any industry); or property guarded as Powder Guard (construction). May be designated according to establishment guarded as Grounds Guard, Arboretum (any industry); Guard, Museum (museums); Watchguard, Racetrack (amuse. & rec.); or duty station as Coin-Vault Guard (any industry). May be designated Guard, Convoy (any industry) when accompanying or leading truck convoy carrying valuable shipments. May be designated: Armed Guard (r.r. trans.); Camp Guard (any industry); Deck Guard (fishing & hunt., water trans.); Night Guard (any industry); Park Guard (amuse. & rec.).

GOE: 04.02.02 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 88

372.667-038 MERCHANT PATROLLER (business ser.) alternate titles: doorshaker; guard; security guard

Patrols assigned territory to protect persons or property: Tours buildings and property of clients, examining doors, windows, and gates to assure they are secured. Inspects premises for such irregularities as signs of intrusion and interruption of utility service. Inspects burglar alarm and fire extinguisher sprinkler systems to ascertain they are set to operate. Stands guard during counting of daily cash receipts. Answers alarms and investigates disturbances [ALARM INVESTIGATOR (business ser.)]. Apprehends unauthorized persons. Writes reports of irregularities. May call headquarters at regular intervals, using telephone or portable radio transmitter. May be armed with pistol and be uniformed. May check workers' packages and vehicles entering and leaving premises.

GOE: 04.02.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

372.667-042 SCHOOL BUS MONITOR (government ser.)

Monitors conduct of students on school bus to maintain discipline and safety: Directs loading of students on bus to prevent congestion and unsafe conditions. Rides school bus to prevent altercations between students and damage to bus. Participates in school bus safety drills. May disembark from school bus at railroad crossings and clear bus across tracks.

GOE: 04.02.03 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

372.677-010 PATROL CONDUCTOR (government ser.) alternate titles: correction officer

Guards prisoners being transported in correctional van between jail, courthouse, prison, mental institution, or other destination: Searches or assures that prisoners have been searched by POLICE OFFICER (government ser.) I and receives commitment papers before placing prisoner in van. Watches prisoner to prevent escape or violence. Delivers prisoner to appropriate authority and obtains signed receipt for prisoner. Searches inside of correctional van after each trip to determine if weapons or valuables have been hidden by prisoner. May administer first aid to injured or ill prisoners. May handcuff violent or dangerous prisoners.

GOE: 04.02.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

373 FIRE FIGHTERS, FIRE DEPARTMENT

This group includes occupations concerned with fighting fires; and inspecting fire-fighting equipment, factories, places of amusement and other establishments, to detect unsafe conditions and to recommend improvements or repairs which will reduce fire hazards. Includes investigative activities concerning causes of fire and other hazards.

373.117-010 FIRE CHIEF (government ser.) alternate titles: chief engineer

Directs activities of municipal fire department: Directs training of personnel and administers laws and regulations affecting department. Evaluates fire prevention and fire control policies by keeping abreast of new methods and conducting studies of departmental operations. Assumes personal command at multiple-alarm fires. Supervises firefighters engaged in operation and maintenance of fire stations and equipment. Coordinates mutual fire protection plans with surrounding municipalities. Surveys buildings, grounds, and equipment to estimate needs of department and prepare departmental budget. Confers with officials and community groups and conducts public relations campaigns to present need for changes in laws and policies and to encourage fire prevention. May investigate causes of fires and inspect buildings for fire hazards. May control issue of occupancy permits and similar licenses. May perform duties of BATTALION CHIEF (government ser.) 373.167-010 in smaller communities. May be designated Chief Of Field Operations (government ser.); District Fire Chief (government ser.); or Fire Chief, Deputy (government ser.) in larger organizations.

GOE: 04.01.01 STRENGTH: L GED: R5 M4 L5 SVP: 8 DLU: 78

373.134-010 FIRE CAPTAIN (government ser.)

Supervises and coordinates activities of company of FIRE FIGHTERS (any industry) assigned to specific firehouse: Inspects station house, buildings, grounds, and facilities, and examines firetrucks and equipment, such as ladders and hoses, to ensure compliance with departmental maintenance standards. Responds to fire alarms and determines from observation nature and extent of fire, condition of building, danger to adjacent buildings, and source of water supply, and directs firefighting crews accordingly. Trains subordinates in use of equipment and methods of extinguishing all types of fires. Evaluates efficiency of personnel. Inspects commercial establishments in assigned district and reports fire hazards or safety violations to FIRE INSPECTOR (government ser.). Compiles report of each fire call, listing location, type, probable cause, estimated damage, and disposition. May respond to emergency calls to render first aid. May recommend corrective measures for fire hazards or safety violations to building owners. May conduct fire drills for occupants of buildings. May supervise and coordinate activities of fire companies fighting multiple alarm fire until relieved by superiors. May write and submit proposal for new equipment or modification of existing equipment to superiors. May be designated Fire Lieutenant (government ser.) in larger organizations. May be designated according to specialty as Fire Captain, Marine (government ser.); Fire Lieutenant, Marine (government ser.).

GOE: 04.01.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

373.167-010 BATTALION CHIEF (government ser.)

Directs and coordinates firefighting activities of battalion of fire companies in municipality: Determines plan of action of fire companies for answering calls in fire, salvage, and rescue operations. Directs inspections of commerical buildings to ensure compliance with fire and safety regulations. Enters fire site during fires to coordinate and supervise fire fighting activities of companies on-site, and reports events to superior, using portable two-way radio. Plans for purchase of new equipment and use of new techniques in rescue, first aid, and firefighting operations. Directs personnel in use of firefighting equipment. Inspects fire stations, equipment, personnel, and records of assigned companies to ensure efficiency and enforcement of departmental regulations. Recommends awards for personnel for superior service. Prepares reports of accidents involving equipment and personnel. Keeps equipment and personnel records. May direct investigation of causes of incendiary and arson cases. May determine cause of fire and appraise amount of fire loss to building and other property. May promote fire prevention activities by organizing and training fire brigades in industrial plants.

GOE: 04.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

373.167-014 CAPTAIN, FIRE-PREVENTION BUREAU (government ser.)

Directs and coordinates activities of personnel of municipal fire prevention bureau: Directs building inspection, arson investigation, and distribution of fire prevention publicity material. Confers with officials or civic representatives to improve fire safety and fire education. Directs public information program for adults and juveniles, such as talks and demonstrations on resuscitation, fire safety, and home-safety inspections. Oversees review of new building plans to ensure compliance with laws, ordinances, and administrative rules for public fire safety. Studies and interprets fire safety codes to establish procedures for issuing permits regulating storage or use of hazardous and flammable substances. Assigns FIRE INSPECTORS (government ser.) to investigate hazards, cases of suspected arson, and false alarms. May participate in inspections and investigations made by subordinates. May train and evaluate employees and oversee performance of department's clerical activities.

GOE: 04.01.01 STRENGTH: L GED: R5 M4 L4 SVP: 8 DLU: 77

373.167-018 FIRE MARSHAL (any industry)

Supervises and coordinates activities of firefighting personnel of industrial establishment and inspects equipment and premises to ensure adherence to fire regulations: Inspects and orders replacement or servicing of firefighting equipment, such as sprinklers and extinguishers. Issues permits for storage and use of hazardous or flammable materials. Inspects premises to detect combustion hazards [FIRE INSPECTOR (any industry) 373.367-010]. Orders and directs fire drills. Directs firefighting and rescue activities according to knowledge of accepted procedures. May be designated according to employing establishment as Fire Chief (saw. & plan.); Fire Marshal, Refinery (petrol. refin.).

GOE: 04.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

373.267-010 FIRE INSPECTOR (government ser.) alternate titles: field inspector

Inspects buildings and equipment to detect fire hazards and enforce local ordinances and state laws: Observes tests of equipment, such as gasoline storage tanks and air compressors, and inspects storage conditions to ensure conform-

ance to fire and safety codes. Issues permits to attest to safe operating conditions. Examines interiors and exteriors of buildings to detect hazardous conditions or violations of fire ordinances and laws. Prepares report of violations or unsafe conditions. Discusses condition with owner or manager and recommends safe methods of storing flammables or other hazardous materials. Informs owner or manager of conditions requiring correction, such as faulty wiring. Issues summons for fire hazards not corrected on subsequent inspection and enforces code when owner refuses to cooperate. Keeps file of inspection records and prepares report of activities. May perform duties of FIRE FIGHTER (any industry) or FIRE CAPTAIN (government ser.). May collect fees for permits and licenses.
GOE: 11.10.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

373.267-014 FIRE MARSHAL (government ser.)

Investigates and gathers facts to determine cause of fires and explosions and enforces fire laws: Investigates case when either arson or criminal negligence is suspected; multialarm fire results in serious injury or death; or fire takes place in commercial establishment of public building. Examines fire site to determine *burn pattern* and detect presence of flammable materials and gases and incendiary devices, using various detectors. Performs match test to determine flash point of suspicious material at fire site. Subpoenas and interviews witnesses, building owners, and occupants to obtain sworn testimony of observed facts. Prepares reports on each investigation and submits data indicating arson to DISTRICT ATTORNEY (government ser.) 110.117-010. Arrests, logs, fingerprints, and detains arson suspect. Testifies in court, citing evidence obtained from investigation. Conducts inquiries into departmental employees delinquency in performance of duties and violation of laws or regulations.
GOE: 04.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

373.267-018 FIRE-INVESTIGATION LIEUTENANT (government ser.)

Investigates and analyzes evidence of fires to determine causes and testifies as expert witness in court: Examines sites of fires and collects evidence to ascertain causes of fires, utilizing knowledge and experience in fire fighting and fire investigation techniques and equipment. Photographs fire damage and evidence of fire causes and stores evidence in vault. Questions persons reporting fires, FIRE FIGHTER (any industry), police, and others to obtain information. Compiles investigation results, determines probable causes of fire, and reports results to superiors. Cooperates with police and insurance companies to investigate reports of fires and stolen flammable materials. Swears out warrants for arrest of suspected arsonists. Gives testimony in court cases involving fires, suspected arson, and false fire alarms. Investigates false fire alarm in cooperation with police. Maintains records of convicted arsonists and arson suspects. Responds to calls from schools and parents to instruct children in dangers of fires.
GOE: 11.10.03 STRENGTH: M GED: R5 M4 L5 SVP: 7 DLU: 77

373.363-010 FIRE CHIEF'S AIDE (government ser.)

Maintains administrative records, chauffeurs FIRE CHIEF (government ser.), and performs related duties in fire department: Compiles administrative records and types reports. Maintains sets of keys to high-rise buildings in area of responsibility. Drives car to transport and accompany FIRE CHIEF (government ser.) on rounds and to scenes of fire. Inspects scene of fire to assess extent of fire and needs of firefighting crew. Radios assessment to superior, using walkie-talkie. Participates in fire drills, and performs FIRE FIGHTER (any industry) duties on chief's instructions.
GOE: 04.02.04 STRENGTH: H GED: R4 M3 L3 SVP: 6 DLU: 77

373.364-010 FIRE FIGHTER (any industry)

Controls and extinguishes fires, protects life and property, and maintains equipment as volunteer or employee of city, township, or industrial plant: Responds to fire alarms and other emergency calls. Selects hose *nozzle*, depending on type of fire, and directs stream of water or chemicals onto fire. Positions and climbs ladders to gain access to upper levels of buildings or to assist individuals from burning structures. Creates openings in buildings for ventilation or entrance, using ax, chisel, crowbar, electric saw, *core cutter*, and other power equipment. Protects property from water and smoke by use of waterproof salvage covers, smoke ejectors, and deodorants. Administers first aid and artificial respiration to injured persons and those overcome by fire and smoke. Communicates with superior during fire, using portable two-way radio. Inspects buildings for fire hazards and compliance with fire prevention ordinances. Performs assigned duties in maintaining apparatus, quarters, buildings, equipment, grounds, and hydrants. Participates in drills, demonstrations, and courses in hydraulics, pump operation and maintenance, and firefighting techniques. May fill fire extinguishers in institutions or industrial plants. May issue forms to building owners, listing fire regulation violations to be corrected. May drive and operate firefighting vehicles and equipment. May be assigned duty in marine division of fire department and be designated Firefighter, Marine (any industry).
GOE: 04.02.04 STRENGTH: V GED: R4 M2 L3 SVP: 6 DLU: 81

373.367-010 FIRE INSPECTOR (any industry) alternate titles: fire watcher

Inspects premises of industrial plant to detect and eliminate fire hazards: Inspects fire-extinguishing and fire-protection equipment to ensure equipment is operable and prepares reports listing repairs and replacements needed. Patrols plant areas and notes and investigates unsafe conditions and practices which might cause or increase fire hazards. Reports findings to FIRE MARSHAL (any industry) with recommendations for eliminating or counteracting hazards. Renders first aid in emergencies. Patrols plant areas in which raw and combustible materials are stored, takes temperature and pressure readings from instruments, and reports undesirable conditions or takes steps to correct such conditions. May instruct employees in fire safety practices. May perform tests on fire-prevention equipment in plants where explosive or flammable materials are processed. May participate in fighting fires [FIRE FIGHTER (any industry)].
GOE: 04.02.02 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

373.663-010 FIRE FIGHTER, CRASH, FIRE, AND RESCUE (air trans.) alternate titles: fire fighter, airport

Responds to actual or potential air-crash emergencies to prevent or extinguish fires and rescue plane crew and passengers: Drives to scene of crash or to end of runway where distressed craft is expected to land. Sprays chemical foam onto runway surface to minimize danger of fire and explosion on impact, and water fog or chemical agents onto craft after landing. Participates in removal of trapped or injured crewmembers and passengers, using flame-cutting equipment if necessary to gain entry to damaged craft. Renders first aid to injured. Establishes firelines to prevent unauthorized persons from entering crash area. May participate in removal or neutralization of explosive ordnance material when military aircraft is involved. May deactivate aircraft electrical power to prevent fires or explosions.
GOE: 04.02.04 STRENGTH: V GED: R4 M2 L3 SVP: 5 DLU: 77

375 POLICE OFFICERS AND DETECTIVES, PUBLIC SERVICE

This group includes occupations concerned with protecting the public; maintaining law and order; detecting and preventing crime; directing and controlling motor traffic; and investigating and apprehending suspects in criminal cases.

375.117-010 POLICE CHIEF (government ser.) alternate titles. police inspector, chief; superintendent, police

Directs and coordinates activities of governmental police department in accordance with authority delegated by Board of Police: Promulgates rules and regulations for department as delegated by regulating code. Coordinates and administers daily police activities through subordinates. Coordinates internal investigation of members of department for alleged wrong doing. Suspends or demotes members of force for infractions of rules or inefficiency. Directs activities of personnel engaged in preparing budget proposals, maintaining police records, and recruiting staff. Approves police budget and negotiates with municipal officials for appropriation of funds. May command force during emergencies, such as fires and riots. May make inspection visits to precincts. May address various groups to inform public of goals and operations of department. May prepare requests for government agencies to obtain funds for special operations or for purchasing equipment for department. In smaller communities, may assist one or more subordinates in investigation or apprehension of offenders. In communities having no Board of Police, may be designated Police Commissioner (government ser.) II.
GOE: 04.01.01 STRENGTH: S GED: R5 M3 L4 SVP: 9 DLU: 81

375.133-010 POLICE SERGEANT, PRECINCT I (government ser.) alternate titles: detail sergeant; division sergeant; patrol sergeant; sergeant; squad sergeant

Supervises and coordinates activities of squad of POLICE OFFICERS (government ser.) I 375.263-014 assigned to patrol, in car or on foot, designated area of municipality: Assumes command of squad at precinct or headquarters, inspects uniforms and equipment, and reads orders to squad. Cruises in car to observe POLICE OFFICER (government ser.) I on post or in cars for efficiency and appearance and to direct them in duties. Reports infractions of rules to superiors. Notifies superior of major crimes or disturbances within area and takes necessary action until arrival of superior. Reports dangers in streets or sidewalks, such as holes, obstructions, or leaking gas mains. May be designated according to assigned duty of force members supervised as Police Sergeant, Radio Patrol (government ser.); or according to type facility assigned as Airport Safety And Security Duty Officer (government ser.).
GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 78

375.137-010 COMMANDER, IDENTIFICATION AND RECORDS (government ser.)

Supervises and coordinates activities of personnel engaged in gathering, cataloging, and identifying evidence, and maintaining police department records: Conceives, develops, and installs police record keeping and cross-filing system to ensure ready retrieval. Directs exchange of criminal records by mail or facsimile transmission between department and local, state, and federal law enforcement agencies. Maintains evidence file of active criminal cases. Assigns POLICE OFFICER, IDENTIFICATION AND RECORDS (government ser.) 375.384-010 to duties according to departmental work load. Reviews informational requests to determine whether release of information on cases to public is in accord with law and department policy. Directs subordinates in preparation of statistical and activity records and reviews reports for accuracy prior to release. Analyzes and resolves work problems or supervises subordinates in resolving problems. Prepares budget for unit and submits to POLICE CHIEF (government ser.) 375.117-010 for review. May perform duties of subordinate officers.
GOE: 07.01.06 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 78

375.137-014 DESK OFFICER (government ser.) alternate titles: operations officer

Supervises and coordinates activities of personnel assigned to police precinct station: Assumes responsibility for safekeeping of money and valuables taken from prisoners, lost or stolen articles, and property held as evidence. Supervises work of POLICE OFFICER (government ser.) II 375.367-010 or POLICE OFFICER (government ser.) I 375.263-014 who search suspects. Supervises TELEPHONE OPERATOR (clerical) 235.662-022 engaged in sending and receiving police communication by telephone and radio systems. Receives notification and informs commanding officer of calls and orders received over police communication systems. Records information, such as name of arresting officer and prisoner's name, address, and charge, to complete precinct activity reports for commanding officer. Commands subordinate officers and subordinate personnel on assigned duty and assumes responsibility for efficiency and discipline of workers under command. Assumes command of station house in absence of commanding officer. May make inspection tour of police beats in precinct area [TRAFFIC LIEUTENANT (government ser.) 375.167-046]. May supervise and coordinate activities of police clerical staff [SECRETARY OF POLICE (government ser.) 375.137-022]. May be designated according to rank as Desk Captain (government ser.); Desk Lieutenant (government ser.); Desk Sergeant (government ser.).

GOE: 04.01.01 STRENGTH: S GED: R4 M2 L3 SVP: 7 DLU: 78

375.137-018 POLICE LIEUTENANT, COMMUNITY RELATIONS (government ser.)

Supervises and coordinates activities of law enforcement personnel in endeavoring to resolve community social problems, and to create better understanding of police functions within community: Assigns subordinates to establish rapport with groups and individuals to identify and resolve grievances, problems, and needs. Consults social service agencies and public groups to determine community needs and to develop and coordinate remedial programs. Sponsors events, such as concerts, dances, and ball games for neighborhood youth groups. Lectures on specific aspects, functions, and goals of police departments to civic, school, and other community groups. Plans and initiates training of new employees. Compiles activity reports and prepares budget of unit for review by POLICE CHIEF (government ser.) 375.117-010.

GOE: 11.09.03 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 78

375.137-022 SECRETARY OF POLICE (government ser.) alternate titles: chief clerk; police-department secretary; secretary to board of commissioners

Supervises and coordinates activities of clerical workers of police department or personally maintains payroll, personnel, and similar records. Swears in and issues appointment papers to police recruits. May assume custody of valuables deposited with police [DESK OFFICER (government ser.)].

GOE: 07.01.02 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

375.137-026 TRAFFIC SERGEANT (government ser.)

Supervises and coordinates activities of officers performing traffic control duties: Visits officers at assigned traffic control stations to relay orders of TRAFFIC LIEUTENANT (government ser.) and observe activities of officers. Notifies superior of traffic conditions requiring additional personnel. Reports irregular conduct or inefficiency of personnel to superior. May supervise and coordinate activities of GUARD, SCHOOL-CROSSING (government ser.). May inspect and test police vehicles to verify operator maintenance reports and contact maintenance shop to perform repairs. May train new GUARDS, SCHOOL-CROSSING (government ser.).

GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

375.137-030 COMMANDER, POLICE RESERVES (government ser.)

Supervises and coordinates activities of police reserve officers to support police personnel at special functions: Writes news releases for press, radio, and television and speaks before community and business groups to recruit police reserve volunteers. Confers with potential reservists to explain policies, duties, responsibilities, and working conditions, and to provide other pertinent information. Reviews applications, results of physical and psychological examinations, oral interviews, and background information to determine suitability of candidates. Plans and coordinates instruction to train reservists in basic police techniques. Issues uniforms, arms, and equipment to reservists. Reviews schedules to determine areas of need and coordinates assignments of reservists to support police personnel at special functions, such as parades and sporting events. Observes reservists at work to evaluate work performance.

GOE: 04.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 86

375.137-034 COMMANDING OFFICER, POLICE (government ser.)

Supervises and coordinates activities of personnel engaged in locating and apprehending fugitives and others sought for various reasons and in locating missing persons: Supervises work of POLICE OFFICER (government ser.) III 375.267-038. Inspects vehicles to detect damage and determine maintenance needs. Prepares reports to document personnel activities and budget requirements. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 86

375.137-038 COMPLAINT EVALUATION SUPERVISOR (government ser.)

Supervises and coordinates activities of workers engaged in receiving telephone requests for police services: Supervises work of COMPLAINT EVALUATION OFFICER (government ser.) 375.367-014. Confers with workers to resolve problems when decision involving procedure or action to be taken is questionable. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 07.04.05 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 86

375.163-010 COMMANDING OFFICER, MOTORIZED SQUAD (government ser.) alternate titles: commanding officer, highway district

Directs and coordinates activities of members of motorized (motorcycle and squad car) highway patrol who enforce state and municipal traffic laws and ordinances: Prepares reports on traffic conditions in patrol areas and recommends changes in traffic-control techniques and regulations to improve conditions. Directs members in safe use and care of motorcycles or cars, and assigns personnel to patrol areas. Evaluates work performance and disciplines immediate subordinates, and reviews evaluation of members of highway patrol unit for infraction of policy or procedures. May review changes in policy or law related to division activities to determine required revisions in operating procedures, and implements revisions. May prepare, or assign subordinate to prepare, revision of patrol training manual. May be designated according to rank as Motorized-Squad Captain (government ser.); Motorized-Squad Lieutenant (government ser.); Motorized-Squad Sergeant (government ser.). In some municipalities, may coordinate activities of all personnel engaged in enforcing traffic laws, directing traffic, and investigating accidents and be designated Commanding Officer, Traffic Division (government ser.).

GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 78

375.163-014 PILOT, HIGHWAY PATROL (government ser.)

Pilots airplane or drives automobile to engage in law enforcement activities: Patrols highway by aircraft to enforce traffic laws and coordinates air operations with ground personnel to apprehend traffic and other law violators. Flies emergency missions to deliver medical supplies. Prepares activities reports. Engages in routine police ground activities.

GOE: 04.01.02 STRENGTH: L GED: R5 M3 L4 SVP: 6 DLU: 77

375.167-010 COMMANDING OFFICER, HOMICIDE SQUAD (government ser.)

Coordinates activities of detectives investigating homicide cases for clues and evidence leading to arrest and conviction of guilty parties: Proceeds to scene of crime and takes charge of investigation. Orders detention of persons in vicinity of crime for questioning. Directs photographing position of body and other evidence. Directs DETECTIVES, HOMICIDE SQUAD (government ser.) in search for clues at crime scene. Questions witnesses and suspects. Prepares and submits report on crime to superior. May assign subordinates to specific cases. May evaluate and prepare work performance reports on subordinates. May be designated according to rank as Homicide-Squad Captain (government ser.); Homicide-Squad Lieutenant (government ser.); Homicide-Squad Sergeant (government ser.).

GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

375.167-014 COMMANDING OFFICER, INVESTIGATION DIVISION (government ser.) alternate titles: commanding officer, vice squad

Directs and coordinates activities of squad of law enforcement personnel engaged in investigating establishments and persons suspected of violating laws concerning gambling, liquor, narcotics, and prostitution: Conducts raids upon suspect establishments and directs arrest of persons involved. Directs persons engaged in collection of evidence to be used in prosecuting arrested suspects. Evaluates work performance of immediate subordinates. May train subordinates newly assigned to investigation division in performance of duties. May prepare and maintain various activity and personnel reports and records. May maintain budget of money to be utilized in purchasing of narcotics from sellers to effect arrest. May be designated according to rank of officer in charge as District Lieutenant (government ser.); Investigation Division Captain (government ser.); Investigation Division Lieutenant (government ser.); Investigation Division Sergeant (government ser.).

GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

375.167-018 COMMANDING OFFICER, MOTOR EQUIPMENT (government ser.) alternate titles: commanding officer, garage; commanding officer, motor transport division; commanding officer, vehicle maintenance unit

Directs and coordinates activities of personnel engaged in repairing, maintaining, and modifying motor vehicles used by municipal or metropolitan police force: Plans and schedules departmental activities to maintain police vehicles in operating condition. Reviews complaints about police vehicle malfunctions from field units and assigns technical research teams to develop corrective modifications or orders repairs. Evaluates work performance of immediate subordinates and reviews evaluations of other division personnel. Disciplines workers for infractions of rules and regulations. Reviews productivity records of work force and operating procedures to identify work areas requiring improvements, and revises procedures. Discusses grievances of worker with supervisor to identify and resolve problem. Prepares division budget estimates, identifying operating cost, procurement of motor vehicles, replacement parts and materials, and cost of outside contractual services. Directs preparation of technical specifications for police vehicles to be purchased and submits to purchasing department. May be designated according to rank as Motor-Equipment Captain (gov-

ernment ser.); Motor-Equipment Lieutenant (government ser.); Motor-Equipment Sergeant (government ser.).
GOE: 11.05.03 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

375.167-022 DETECTIVE CHIEF (government ser.) alternate titles: commanding officer, detectives; detective-bureau chief
Directs and coordinates activities of detective squad engaged in investigation of criminal cases, such as auto theft, armed robbery, missing persons, homicide, vice, narcotics, fraud, and crimes involving youths: Assigns DETECTIVES (government ser.) 375.267-010 to designated posts or criminal cases. Reviews and submits reports of cases investigated to superiors. Ensures that apprehended criminals are fingerprinted. Directs photographing of crime scene, evidence, and suspects. Submits record of suspicions along with statement of witnesses and informants to office of DISTRICT ATTORNEY (government ser.) 110.117-010 for submission to MAGISTRATE (government ser.) 111.107-014 to obtain search warrant necessary to raid premises suspected of housing illegal activities. Conducts raids upon establishments suspected of violating such statutes as gambling or prostitution laws and oversees arrest of persons involved. Details officers to public gatherings to protect public from pickpockets and other criminals. May personally investigate criminal cases. May be designated according to nature of crime investigated as Commanding Officer, Automobile Section (government ser.); or according to rank as Detective Captain (government ser.); Detective Lieutenant (government ser.); Detective Sergeant (government ser.) I.
GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 78

375.167-026 HARBOR MASTER (government ser.) alternate titles: port warden
Directs and coordinates activities of harbor police force to ensure enforcement of laws, regulations, and policies governing navigable waters and property under jurisdiction of municipality or port district. Confers with officials, such as port authorities, Coast Guard officers, and members of city council to establish policies, define responsibilities, and determine operating requirements. Issues general instructions and outline of departmental policies regarding water-traffic control, public safety, theft prevention, and apprehension of law violators to subordinate officers and confers with them to determine operating procedures. Authorizes or approves departmental expenditures, personnel actions, and department's participation or assistance in activities not regularly assigned. Prepares periodic activity reports and annual budget. May evaluate work performance of captain and crew of ship. May direct rescue operations from patrol launch after major disaster, such as ship collision or downed aircraft.
GOE: 04.01.01 STRENGTH: S GED: R5 M3 L4 SVP: 8 DLU: 77

375.167-030 LAUNCH COMMANDER, HARBOR POLICE (government ser.)
Coordinates activities of crew patrolling municipal harbor to detect and apprehend criminals and render assistance to persons in distress: Directs navigation of power launch. Assigns stations and duties to crew as required by occurrences during patrol. Rescues drowning victims, recovers bodies, and attempts to prevent sinking of ships in distress. Cooperates with federal or other law enforcement officers in detection and apprehension of criminals, such as smugglers and illegal entrants. Investigates suspicious vessels and establishments in harbor area. Reports navigation hazards, faulty navigation aids, and fires or marine accidents to authorities concerned. Receives orders from and reports activities to POLICE CHIEF (government ser.) or HARBOR MASTER (government ser.), using radio or telephone. Inspects appearance and condition of vessel and crew for conformity with departmental standards. Maintains log of activities and fuel or other supplies consumed. Requisitions provisions and fuel. May participate in firefighting activities in dock area. May train crewmembers to rescue drowning victims, recover bodies, and prevent sinking of ships in distress. May be designated according to rank as Harbor-Police Captain (government ser.); Harbor-Police Lieutenant (government ser.).
GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

375.167-034 POLICE CAPTAIN, PRECINCT (government ser.) alternate titles: captain; commanding officer, precinct; district captain; patrol commander; precinct captain; uniform-force captain
Directs and coordinates activities of members of police force assigned to precinct or patrol division: Conducts roll call of officers at beginning and end of tour of duty. Explains general orders, special messages, and decisions of POLICE CHIEF (government ser.) 375.117-010 to subordinates. Assigns force members to designated posts. Informs members of command of changes in regulations and policies, implications of new or amended laws, and new techniques of police work. Submits report on condition of precinct or police station house and equipment and on daily precinct or patrol activities to superiors. Investigates charges of inefficiency or neglect of duty against force members and files charges based on evidence. Recommends merit awards for subordinates. Investigates charges filed against private citizens by complainants before issuing arrest orders. Reads and forwards reports of subordinates to POLICE CHIEF (government ser.). May review activity reports prepared by police personnel for quantity and quality of work performance. May read and answer police correspondence. May write and submit police press releases to media. May issue city permits signed by POLICE CHIEF (government ser.) for parades, street vendors and petitioners. May assign and work with ADMINISTRATIVE ASSISTANT (any industry) 169.167-010 to prepare budget of department. May be designated according to assignment as Chief, Airport Safety And Security (government ser.); Police Lieutenant, Precinct (government ser.); Police Sergeant, Precinct (government ser.) II.
GOE: 04.01.01 STRENGTH: L GED: R5 M3 L4 SVP: 8 DLU: 78

375.167-038 POLICE LIEUTENANT, PATROL (government ser.)
Directs and coordinates activities of municipal police patrol force: Conducts roll call of subordinates. Relays orders and messages from superior. Inspects police logbooks to ascertain that information is recorded in conformance with regulations. Assists subordinates in performance of duties. Records information identifying arrested suspect in logbook and advises prisoner of charges. Sets bail for prisoners held on nonfelony charges, following court prepared instructions. May perform inspection tours of police beats.
GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

375.167-042 SPECIAL AGENT (government ser.) alternate titles: criminal investigator
Investigates alleged or suspected criminal violations of federal, state, or local laws to determine if evidence is sufficient to recommend prosecution: Analyzes charge, complaint, or allegation of law violation to identify issues involved and types of evidence needed. Assists in determining scope, timing, and direction of investigation. Develops and uses informants to get leads to information. Obtains evidence or establishes facts by interviewing, observing, and interrogating suspects and witnesses and analyzing records. Examines records to detect links in chain of evidence or information. Uses cameras and photostatic machines to record evidence and documents. Verifies information obtained to establish accuracy and authenticity of facts and evidence. Maintains surveillances and performs undercover assignments. Presents findings in clear, logical, impartial, and properly documented reports. Reports critical information to and coordinates activities with other offices or agencies when applicable. Testifies before grand juries. Serves subpoenas or other official papers. May lead or coordinate work of other SPECIAL AGENTS. May obtain and use search and arrest warrants. May serve on full-time, detail, or rotational protection assignments. May carry firearms and make arrests. May be designated according to agency worked for as Special Agent, FBI (government ser.); Special Agent, IRS (government ser.); Special Agent, Secret Service (government ser.).
GOE: 04.01.02 STRENGTH: M GED: R5 M5 L5 SVP: 7 DLU: 77

375.167-046 TRAFFIC LIEUTENANT (government ser.)
Directs and coordinates activities of police personnel in performance of traffic-control duties and removal of illegally parked vehicles: Recommends changes in traffic-control devices and regulations, considering suggestions of subordinates as well as own observations of traffic conditions at intersections or other points where police personnel are stationed. Evaluates work performance of subordinates. May cooperate with demonstration and parade officials to identify line of march and number of people involved in event. May analyze proposed parade plans to determine traffic rerouting requirements and number and disposition of police personnel; and prepares operations procedure to be utilized. May assume command of police personnel at site of unauthorized demonstrations to minimize traffic disruption and to maintain law and order.
GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

375.167-050 COMMANDER, INTERNAL AFFAIRS (government ser.)
Directs activities of workers engaged in investigating accusations against police personnel, administering disciplinary actions and inspecting police personnel and equipment: Directs investigative work of internal affairs personnel to gather information for presentation at hearings in response to accusations against police personnel or deficiencies in performance. Schedules hearings to permit complainant or accused officer to appeal recommended disciplinary action. Supervises work of POLICE INSPECTOR (government ser.) I 375.267-026.
GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 86

375.167-054 POLICE ACADEMY PROGRAM COORDINATOR (government ser.)
Plans and coordinates training programs for recruits, in-service police officers, licensed security guards, and other law enforcement personnel: Reviews police technology and law enforcement literature, surveys agency personnel, and confers with Police Academy and Police Department administrators to determine training needs, assess current programs, and propose new courses. Determines feasibility of proposed courses based on factors such as number of registrants, availability of instructors, and funds allocation. Arranges for course instructors, allocates space, and ensures availability of training materials and equipment. Assists instructors during training sessions and evaluates course effectiveness. Maintains enrollee records. May specialize in coordinating training in specific area, such as security, police vehicle driving, or firearms.
GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 86

375.227-010 POLICE-ACADEMY INSTRUCTOR (government ser.)
Instructs probationary and experienced POLICE OFFICERS (government ser.) I in such phases of police work as police science, police ethics, investigative methods and techniques, government, law, community relations, marksmanship, self defense, and care of firearms. Evaluates test results and classroom performance of students and prepares performance evaluation reports. May drill personnel at regular intervals or before parades and similar events.
GOE: 04.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

375.263-010 ACCIDENT-PREVENTION-SQUAD POLICE OFFICER (government ser.) alternate titles: crash-squad accident investigator
Investigates traffic accidents as member of squad to obtain details surrounding accident, determine if crime was committed, and to provide interested par-

ties with reliable data surrounding accident for use in legal action or formulation or revision of traffic safety program: Photographs and diagrams accident scene and tests brakes and tires of involved vehicles, using testing equipment. Questions and records statements of principals and eye witnesses of accident. Reviews all facts to determine if crime, such as vehicular homicide, murder, manslaughter, or assault, or traffic violation was involved. Arrests perpetrator of criminal act or submits traffic citation to violator of motor vehicle ordinance. Files all facts, records, and information involved in case for possible use in criminal or civil legal action or safety program.
GOE: 04.01.02 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 77

375.263-014 POLICE OFFICER I (government ser.) alternate titles: patrol officer; traffic officer

Patrols assigned beat on foot, on motorcycle, in patrol car, or on horseback to control traffic, prevent crime or disturbance of peace, and arrest violators: Familiarizes self with beat and with persons living in area. Notes suspicious persons and establishments and reports to superior officer. Reports hazards. Disperses unruly crowds at public gatherings. Renders first aid at accidents, and investigates causes and results of accident. Directs and reroutes traffic around fire or other disruption. Inspects public establishments requiring licenses to ensure compliance with rules and regulations. Warns or arrests persons violating animal ordinances. Issues tickets to traffic violators. Registers at police call boxes at specified interval or time. Writes and files daily activity report with superior officer. May drive patrol wagon or police ambulance. May notify public works department of location of abandoned vehicles to tow away. May accompany parking meter personnel to protect money collected. May be designated according to assigned duty as Airport Safety And Security Officer (government ser.); Dance-Hall Inspector (government ser.); Traffic Police Officer (government ser.); or according to equipment used as Ambulance Driver (government ser.); Motorcycle Police Officer (government ser.); Mounted Police Officer (government ser.). May be designated: Emergency-Detail Driver (government ser.); Patrol Driver (government ser.); Pool-Hall Inspector (government ser.); Radio Police Officer (government ser.); Show Inspector (government ser.).
GOE: 04.01.02 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 81

375.263-018 STATE-HIGHWAY POLICE OFFICER (government ser.) alternate titles: state trooper

Patrols state highways within assigned area, in vehicle equipped with two-way radio, to enforce motor vehicle and criminal laws: Arrests or warns persons guilty of violating motor vehicle regulations and safe driving practices. Monitors passing traffic to detect stolen vehicles and arrests drivers where ownership is not apparent. Provides road information and assistance to motorists. Directs activities in accident or disaster area, rendering first aid and restoring traffic to normal. Investigates conditions and causes of accident. Directs traffic in congested areas and serves as escort for funeral processions, military convoys, and parades. Performs general police work by keeping order and apprehending criminals. Appears in court as witness in traffic violation and criminal cases. Keeps records and makes reports regarding activities. May assist law enforcement officers not under state jurisdiction. May serve as DISPATCHER, RADIO (government ser.) 379.362-010 at patrol substation. May supervise activities of station equipped to inspect automobiles for safe operating conditions.
GOE: 04.01.02 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 81

375.264-010 POLICE OFFICER, CRIME PREVENTION (government ser.)

Inspects dwellings and public buildings to evaluate security needs and to recommend measures to make premises less vulnerable to crime, and installs burglar alarm systems: Inspects locks, window barriers, alarms, lighting, and other features to evaluate needs and to recommend actions to strengthen security. Lends etching tools to individuals to inscribe identfying information on personal and household articles. Installs portable self-contained protective signal systems and positions sensing devices at strategic locations to detect burglary or other irregularities and to notify police. Inspects equipment to detect malfunctions. Addresses community groups to inform citizens of crime prevention and security methods. May compile and analyze data from patrol unit reports to identify patterns of crime and to recommend changes in police patrols to prevent further crimes.
GOE: 04.01.02 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 86

375.267-010 DETECTIVE (government ser.) alternate titles: detective, criminal investigation; plain-clothes officer

Carries out investigations to prevent crimes or solve criminal cases: Investigates known or suspected criminals or facts of particular case to detect planned criminal activity or clues. Frequents known haunts of criminals and becomes familiar with criminals' habits, associates, characteristics, aliases, and other personal information. Records and reports such information to commanding officer. Investigates crimes and questions witnesses. Examines scene of crime to obtain clues and gather evidence. Investigates suspected persons and reports progress of investigation. Arrests or assists in arrest of criminals or suspects. Prepares assigned cases for court, according to formalized procedures. Testifies before court and grand jury. May be designated according to nature of crime investigated as Detective, Automobile Section (government ser.); Detective, Homicide Squad (government ser.); according to rank as Detective Sergeant (government ser.) II; or according to administrative division to which assigned as Detective, Precinct (government ser.); Detective, Youth Bureau (government ser.).
GOE: 04.01.02 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 80

375.267-014 DETECTIVE, NARCOTICS AND VICE (government ser.)

Investigates and apprehends persons suspected of illegal sale or use of narcotics, or violating anti-vice laws: Examines prescriptions in pharmacies and physicians' records to ascertain legality of sale and distribution of narcotics, and determines amount of such drugs in stock. Investigates persons suspected of illegal sale or purchase of narcotics and arrests offenders. Investigates establishments and persons suspected of violating anti-vice laws, working as member of squad, and conducts or participates in raids of such establishments. Arrests suspects and obtains evidence to be used by DISTRICT ATTORNEY (government ser.) in prosecuting case in court. Obtains statements for prosecution of offenders and appears in court as witness. Records progress of investigation and reports to superior.
GOE: 04.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

375.267-018 INVESTIGATOR, NARCOTICS (government ser.) alternate titles: narcotics investigator

Investigates and apprehends persons suspected of illegal sale or use of narcotics: Compiles identifying information on suspects charged with selling narcotics. Maintains surveillance of suspect to detect modus operandi. Selects undercover officer best suited to contact suspect and purchase narcotics. Obtains police funds required to make purchase. Submits written report containing charges, available facts, and evidence to MAGISTRATE (government ser.) to authorize search warrant or wire tap. Observes and photographs narcotic purchase transaction to compile evidence and protect undercover investigator. Arrests narcotics offenders. Obtains statements for prosecution of offenders and appears in court as witness.
GOE: 04.01.02 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

375.267-022 INVESTIGATOR, VICE (government ser.) alternate titles: morals-squad police officer; vice-squad police officer

Investigates establishments and persons suspected of violating antivice laws, working as member of squad, and conducts raids upon such establishments: Arrests suspects and obtains evidence to be used by state or municipality in prosecuting suspects arrested. Records and maintains informational files on suspects and establishments. Reviews governmental agency files to obtain identifying data pertaining to suspects or establishments suspected of violating antivice laws. Maintains surveillance of establishments to attain identifying information on suspects. May operate as undercover agent to penetrate organized crime ring to obtain evidence necessary to arrest and prosecute.
GOE: 04.01.02 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

375.267-026 POLICE INSPECTOR I (government ser.) alternate titles: division commander; field control inspector; police captain, senior

Inspects police stations and examines personnel and case records to ensure that police personnel conform to prescribed standards of appearance, conduct, and efficiency: Inspects premises and police records and observes activities in assigned division for evidence of inefficiency and misconduct. Prepares reports concerning discipline, efficiency, and condition of force within division. Submits reports to superiors and recommends disciplinary action or changes in rules governing activities of force. Transmits orders from POLICE CHIEF (government ser.) 375.117-010 to commanding officers within division. Takes command of members of force during emergencies, such as fires and riots. May formulate procedures and human resource requirements, and direct personnel assigned to crowd control at such events as parades, demonstrations, and labor disputes. May serve as police liaison on public and civic boards engaged in planning and developing programs, and prepare procedures to identify police function in assisting board to improve community living. May be designated Police Chief, Deputy (government ser.) and report directly to POLICE CHIEF (government ser.).
GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 78

375.267-030 POLICE INSPECTOR II (government ser.)

Visits railroad stations, stores, theaters, places of amusement, or public gatherings to detect, prevent, and solve crimes: Notes actions of known criminals or suspicious persons to prevent crimes. Ascertains that establishments and publicly licensed gatherings conform to law. Arrests or warns unruly persons, law violators, and suspected criminals. Compares lists of stolen merchandise with items displayed in retail stores, pawn shops, used-car lots, and other outlets for such goods. Directs closing of illegal establishments and indecent amusement performances. Alerts other police officers or public authorities to take prescribed action after he has left the premises. Files reports of establishments visited, findings, and recommendations for action. May be designated according to assigned beat or establishment visited as Inspector, Pawnshop Detail (government ser.). May be permanently assigned to specific establishment, such as ballpark or recreation center.
GOE: 04.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

375.267-034 INVESTIGATOR, INTERNAL AFFAIRS (government ser.)

Investigates complaints filed against police officers by citizens: Interviews complainant to identify officers being accused and to obtain facts concerning complaints. Interviews accused officers to obtain responses to accusations. Records interviews, using recording device, and prepares charges and responses to charges, using recorded information as reference. Conducts investigations to establish facts supporting complainant or accused, using supportive information from witnesses or tangible evidence. Schedules polygraph test for consenting

parties, and records results of test interpretations for presentation with findings. Writes report of findings from results of investigation and submits reports to commanding officer for review. Testifies at hearings as requested.
GOE: 07.01.06 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 86

375.267-038 POLICE OFFICER III (government ser.)
Conducts investigations to locate, arrest, and return fugitives and persons wanted for nonpayment of support payments and unemployment insurance compensation fraud, and to locate missing persons: Reviews files and criminal records to develop possible leads, such as previous addresses and aliases. Contacts employers, neighbors, relatives, law enforcement agencies, and other persons to locate person sought. Obtains necessary legal documents, such as warrants or extradition papers, to bring about return of fugitive. Serves warrants and makes arrests to return persons sought. Examines medical and dental x rays, fingerprints, and other information to identify bodies held in morgue. Completes reports to document information acquired and actions taken. Testifies in court to present evidence regarding cases.
GOE: 04.01.02 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 86

375.267-042 POLICE OFFICER, SAFETY INSTRUCTION (goveranment ser.)
Conducts training programs to enhance public and personal safety and law enforcement: Collects and organizes materials, prepares and delivers lectures, and plans and implements activities to educate and advise school students, teachers, parents, and civic and business groups on such topics as personal and public safety, drugs, safe driving, and law enforcement. Coordinates activities between schools, clubs and other organizations, and police department to administer crime prevention programs. Talks with students, teachers, parents, and other individuals to establish rapport, identify problems, offer assistance, and to aid students in danger of becoming delinquent. Carries out investigations to prevent crimes and solve criminal cases [DETECTIVE (government ser.) 375.267-010]. May survey premises of homes, businesses, and other establishments to evaluate needs and to recommend safety and security measures.
GOE: 04.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 86

375.362-010 POLICE CLERK (government ser.)
Compiles daily duty roster and types and maintains various records and reports in municipal police department to document information, such as daily work assignments, equipment issued, vacation scheduled, training records, and personnel data: Prepares duty roster to indicate such personnel information as days on, days off, equipment assigned, and watch. Arranges schedule to most efficiently use personnel and equipment and ensure availability of personnel for court dates. Submits roster to superior for approval. Compiles and records data to maintian personnel folders. Reviews duty roster, personnel folders, and training schedules to schedule training for police personnel. Performs other duties as described under POLICE AIDE (government ser.) 243.362-014.
GOE: 07.05.01 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 86

375.363-010 BORDER GUARD (government ser.) alternate titles: border patrol agent
Patrols on foot, by motor vehicle, power boat, or aircraft along border or seacoast of United States to detect persons attempting to enter country illegally. Apprehends and detains illegal entrants for subsequent action by immigration authorities. May question agricultural workers near border to identify and apprehend illegal aliens. May report evidence of smuggling observed on patrol to customs authorities.
GOE: 04.02.03 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

375.367-010 POLICE OFFICER II (government ser.) alternate titles: correction officer; supervisor, education and custody
Guards female and juvenile persons detained at police station house or detention room pending hearing, return to parents, or transfer to penal institution, and is responsible for inmates' care while incarcerated: Searches all female prisoners for weapons, contraband, drugs, and other harmful articles. Investigates background of first offenders and causes for arrest, and makes recommendations to MAGISTRATE (government ser.) concerning the disposition of case. Cares for and administers to female and juvenile prisoners who are sick or intoxicated. Cares for lost and runaway children until parents or guardians are contacted. Accompanies all female and juvenile prisoners to court and remains with prisoners until case has been disposed of. May observe inmates in cells to assure prisoners' well-being and adherence to regulations and rules. May maintain identification record of incarcerated females. May be responsible for cleanliness and sanitation of dormitory and cells of detention rooms.
GOE: 04.02.01 STRENGTH: L GED: R3 M1 L2 SVP: 5 DLU: 77

375.367-014 COMPLAINT EVALUATION OFFICER (government ser.)
Evaluates telephone requests for police services and monitors alarm systems to determine urgency of requests and need to dispatch patrol car: Converses with telephone caller to obtain information and respond to requests for police services. Evaluates information received to determine if patrol car should be dispatched immediately, dispatched on delayed basis, or if situation can be resolved without patrol car being dispatched. Observes light and sound signals on wall panel to monitor alarm systems of fire department, private protective agencies, citizen band radio, city hall, or other buildings. Relays information to DISPATCHER, RADIO (government ser.) 379.362-010 when patrol car is to be dispatched.
GOE: 07.04.05 STRENGTH: S GED: R4 M2 L3 SVP: 6 DLU: 86

375.367-018 POLICE OFFICER, BOOKING (government ser.)
Completes and maintains various records to book and process prisoners: Prepares reports to document arrest information, such as name, address, charge, and arresting officer. Fingerprints and searches prisoners. Records personal property of prisoners and seals property in envelope. Logs and forwards arrest registers to teleprocessing unit to enter information into computer-based information system. Monitors arrest registers, using computer-based information system to ensure timely processing of prisoners in accordance with procedural requirements. Reviews booking reports of prisoners arrested in other districts to verify completeness and accuracy of reports. Schedules pretrial interviews, prepares court dockets, and releases prisoners in response to bail being posted to process prisoners. Answers inquiries to explain procedures, give status of individuals, verify information, and expedite processing of prisoners.
GOE: 04.02.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 86

375.384-010 POLICE OFFICER, IDENTIFICATION AND RECORDS (government ser.)
Collects evidence at scene of crime or fatal accident, classifies and identifies fingerprints, and photographs evidence for use in criminal and civil cases: Dusts selected areas of crime scene to locate and reveal latent fingerprints. Lifts prints from crime site, using special tape. Photographs crime or accident scene to obtain record of evidence. Photographs, records physical description, and fingerprints homicide victims and suspects for identification purposes. Classifies and files fingerprints FINGERPRINT CLASSIFIER (government ser.) 375.387-010. Develops film and prints, using photographic developing equipment. Submits evidence to COMMANDER, IDENTIFICATION AND RECORDS (government ser.) 375.137-010 for cataloging.
GOE: 07.01.06 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

375.387-010 FINGERPRINT CLASSIFIER (government ser.) alternate titles: fingerprint expert
Classifies fingerprints and compares fingerprints of unknown persons or suspects with fingerprint records to determine if prints were involved in previous crimes: Classifies record cards containing fingerprints of crime suspects according to specified grouping, and compares fingerprints with others in file to determine if prisoner has criminal record or is wanted for other crimes. Examines fingerprint evidence left at scene of crime, classifies prints, and endeavors to identify person. May fingerprint prisoner, using ink pad. May transfer residual fingerprints from objects, such as weapons or drinking glasses, to record cards, using standard technique. May keep files of criminals and suspects, containing such information as photographs, habits, and modus operandi of crimes with which individual has been connected.
GOE: 02.04.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

375.587-010 PARKING ENFORCEMENT OFFICER (government ser.) alternate titles: parking enforcement agent
Patrols assigned area, such as public parking lot or section of city, to issue tickets to overtime parking violators. Winds parking meter clocks. Surrenders ticket book at end of shift to supervisor to facilitate preparation of violation records. May report missing traffic signals or signs to superior at end of shift. May chalk tires of vehicles parked in unmetered spaces, record time, and return at specified intervals to ticket vehicles remaining in spaces illegally. May collect coins deposited in meters. When patrolling metered spaces, may be known as Meter Attendant (government ser.).
GOE: 04.02.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

376 POLICE OFFICERS AND DETECTIVES, EXCEPT IN PUBLIC SERVICE

This group includes occupations concerned with policing private property to prevent thievery, malicious damage, and dishonesty among employees or patrons; and to maintain order. Includes investigating irregularities concerning fire, sabotage, or unlawful intrusion, and conducting private investigations on a fee basis.

376.137-010 MANAGER, INTERNAL SECURITY (business ser.)
Supervises and coordinates activities of STORE DETECTIVES (retail trade), conducts private investigations, and sells internal protective service to wholesale and retail businesses: Assigns STORE DETECTIVES (retail trade) to shifts at various locations according to job requirements and worker's abilities, skills, and experience. Observes workers in performance of duties to evaluate efficiency and to detect and correct inefficient work practices. Interviews and hires workers to fill vacant positions. Demonstrates and explains methods of detecting and apprehending shoplifters. Explains state laws concerning arrest and detention to employees. Conducts private investigation to obtain information concerning such matters as divorce evidence, juvenile runaways, and background data on persons applying for employment, insurance, or bonding. Acts as undercover agent in retail stores to detect employee incompetency and dishonesty. Prepares detailed reports concerning matters investigated. Contacts business establishments to promote sales of security services. Analyzes security needs, estimates costs, and presents proposal to prospective customer.
GOE: 04.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

376.167-010 SPECIAL AGENT-IN-CHARGE (r.r. trans.)
Directs and coordinates activities of security staff to protect railroad passengers, employees, and property: Plans and implements programs to protect railroad passengers, employees, and property. Directs investigation of crimes on railroad property, freight theft claims, or suspicious damage and loss of passenger's valuables. Directs security activities at derailments and fires, floods and strikes involving railroad property or responsibility. Conducts investigations

and implements programs related to fire prevention and inspections, grade crossing accident prevention, and other special safety and prevention measures. Directs security training of new employees.
GOE: 04.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

376.267-010 INVESTIGATOR, CASH SHORTAGE (retail trade)
Investigates cash shortages occurring in sales section of department store: Receives notification regarding shortage of cash from audit or sales department. Discusses shortage with sales department and security department supervisors. Reviews sales checks and cash register tapes, and counts cash to verify shortages. Observes personnel on closed circuit television to detect thefts. Questions store personnel to obtain evidence and develop cases. Apprehends and turns suspect over to security department. Prepares case summaries and testifies at hearings of suspects.
GOE: 11.10.01 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

376.267-014 INVESTIGATOR, FRAUD (retail trade)
Investigates cases of fraud involving use of charge cards reported lost or stolen, cash refunds, and nonexistent accounts in retail stores: Receives information from credit, sales, and collection departments regarding suspected fraud cases. Interviews store personnel, and observes and questions suspected customers to obtain evidence. Compiles detailed reports on fraud cases, and submits and discusses cases with police. Consults with postal officials when charge cards are reported stolen in mail. Testifies at court trials of offenders. Prepares reports of fraud cases and submits reports to security department and other store officials.
GOE: 11.10.01 STRENGTH: S GED: R4 M4 L3 SVP: 7 DLU: 77

376.267-018 INVESTIGATOR, PRIVATE (business ser.) alternate titles: detective, private eye; undercover agent; undercover operator
Conducts private investigations to locate missing persons, obtain confidential information, and solve crimes: Questions individuals to locate missing persons. Conducts surveillance of suspects using binoculars and cameras. Conducts background investigation of individual to obtain data on character, financial status, and personal history. Examines scene of crime for clues and submits fingerprints and findings to laboratory for identification and analysis. Writes reports of investigations for clients. Reports criminal information to police and testifies in court. May investigate activities of individuals in divorce and child custody cases. May arrange lie detector tests for employees of clients or witnesses. May escort valuables to protect client's property. May be employed in commercial or industrial establishments for undercover work [DETECTIVE (any industry) I] or be assigned to guard persons [BODYGUARD (personal ser.)].
GOE: 04.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 5 DLU: 77

376.267-022 SHOPPING INVESTIGATOR (business ser.) alternate titles: investigator; service auditor; shopping inspector; spotter
Shops in commercial, retail, and service establishments to test integrity of sales and service personnel, and evaluates sales techniques and services rendered customers: Reviews establishment's policies and standards to ascertain employee-performance requirements. Buys merchandise, orders food, or utilizes services to evaluate sales technique and courtesy of employee. Carries merchandise to check stand or sales counter and observes employee during sales transaction to detect irregularities in listing or calling prices, itemizing merchandise, or handling cash. Delivers purchases to agency conducting shopping investigation service. Writes report of investigations for each establishment visited. Usually works as member of shopping investigation crew.
GOE: 11.10.05 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

376.367-010 ALARM INVESTIGATOR (business ser.) alternate titles: armed guard; investigator operator; security agent
Investigates source of alarm and trouble signals on subscribers' premises, as recorded in central station of electrical protective signaling system: Drives radio-equipped car to subscriber's establishment, and locates source of alarm. Investigates disturbances, such as unlawful intrusion, fires, and property damage. Apprehends unauthorized persons found on property, using armed force if necessary, and releases them to custody of authorities. Contacts supervisor by radio or telephone to report irregularities and obtain further instructions. Adjusts and repairs subscriber's signaling equipment to restore service, using handtools. Coordinates activities with police and fire departments during alarms. Writes investigation and automobile usage reports.
GOE: 04.02.04 STRENGTH: L GED: R3 M1 L3 SVP: 3 DLU: 77

376.367-014 DETECTIVE I (any industry) alternate titles: investigator
Protects property of business establishment by detecting vandalism, thievery, shoplifting, or dishonesty among employees or patrons, performing any combination of following duties: Conducts investigations on own initiative or on request of management. Stakes out company grounds to apprehend suspects in illegal acts. Questions suspects and apprehends culprits. Files complaints against suspects and testifies in court as witness. Writes case reports. Alerts other retail establishments when person of known criminal character is observed in store. May be designated according to type of establishment as Store Detective (retail trade).
GOE: 04.02.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

376.367-018 HOUSE OFFICER (hotel & rest.) alternate titles: house detective; security officer; special officer
Patrols hotel or motel premises to maintain order, enforce regulations, and ensure observance of applicable laws: Patrols lobbies, corridors, and public rooms, confers with management, interviews guests and employees, and interrogates persons to detect infringements and investigate disturbances, complaints, thefts, vandalisms, and accidents. Patrols public areas to detect fires, unsafe conditions, and missing or inoperative safety equipment. Warns or ejects troublemakers, and cautions careless persons. Obtains assistance for accident victims and writes accident reports. Notifies staff of presence of persons with questionable reputations. Assists management and enforcement officers in emergency situations. Usually is not armed. May enter and check rooms of guests suspected of leaving without paying bill to confirm suspicions and to seize any remaining personal property.
GOE: 04.02.03 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

376.367-022 INVESTIGATOR (utilities)
Investigates persons suspected of securing services through fraud or error: Makes personal calls on individuals in question and tactfully attempts to secure evidence or personal admission that individual being investigated owes for previous service, or obtains pertinent data to show that suspicion was unwarranted.
GOE: 04.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

376.367-026 UNDERCOVER OPERATOR (retail trade) alternate titles: undercover agent
Detects thievery or problems of morality, or verifies employee conformance to company policies and procedures, working in any occupation of establishment: Talks to employees to gain their friendship and confidence. Observes daily routines of employees and unusual occurrences. Performs duties of regular employees, such as sales, stock control, or truck driving, depending on assignment and experience. Maintains record of activities and makes periodic reports to home office.
GOE: 04.02.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

376.667-010 BOUNCER (amuse. & rec.) alternate titles: house detective
Patrols place of entertainment to preserve order among patrons and protect property: Circulates among patrons to prevent improper dancing, skating, or similar activities, and to detect persons annoying other patrons or damaging furnishings of establishment. Warns patrons guilty of infractions and evicts them tactfully from premises if they become unruly or ejects them by force if necessary. Calls police if unable to quell disturbance. May be designated according to type of establishment patrolled as Fun-House Attendant (amuse. & rec.); Guard, Dance Hall (amuse. & rec.); Ice Guard, Skating Rink (amuse. & rec.).
GOE: 04.02.03 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

376.667-014 DETECTIVE II (any industry)
Patrols premises of business establishment to preserve order and enforce standards of decorum established by management: Requests patrons to conform with rules pertaining to dress, behavior, or sobriety. Requests undesirable persons, such as inebriates, rowdies, known criminals, or perverts to leave premises and forcibly ejects undesirables or notifies police. May be designated according to employing establishment as Detective, Bowling Alley (amuse. & rec.); Special Officer, Automat (hotel & rest.).
GOE: 04.02.03 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

376.667-018 PATROLLER (r.r. trans.)
Guards, patrols, and polices railroad yards, stations, and other facilities to protect company property: Examines credentials of persons desiring entrance to unauthorized areas. Patrols yards to apprehend unauthorized persons and remove them from yard. Walks about stations or terminal to maintain order. Polices right-of-way to prevent dumping of rubbish on company grounds. Arrests persons dumping rubbish on grounds. Cooperates with local law enforcement agencies in apprehending trespassers or thieves. May record seal numbers of boxcars containing high pilferage items, such as cigarettes and liquor, and verify record with electronic data processing list of original seal and car numbers to detect pilfered cars. May seal empty boxcars by twisting nails in door hasps, using nail twister. May be designated according to assigned post as Gate Guard (r.r. trans.); Right-Of-Way Inspector (r.r. trans.); Station Patroller (r.r. trans.); Yard Patroller (r.r. trans.).
GOE: 04.02.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

377 SHERIFFS AND BAILIFFS

This group includes occupations concerned with enforcing law and order in rural or unincorporated districts; maintaining order in court; and serving summonses.

377.134-010 SUPERVISOR, IDENTIFICATION AND COMMUNICATIONS (government ser.)
Supervises and coordinates activities of officers engaged in gathering and identifying evidence and operating radio relay transmitters to furnish information to fire and law enforcement departments: Designs and installs criminal identification filing systems, such as fingerprint, photograph, modus operandi and name, criminal-wanted and crimes reported files, to facilitate information retrieval. Directs exchange of criminal records between department and local, state, and federal law enforcement agencies. Prepares operator's work schedules to ensure round-the-clock coverage of radio transceivers. Assigns officers to duties according to work load. Verifies fingerprint classifications performed by IDENTIFICATION OFFICER (government ser.) to ensure accuracy. Collects and processes evidence in homicide cases [IDENTIFICATION OFFICER (government ser.)]. Testifies in court as qualified fingerprint expert. Determines

equipment needs and prepares and submits request for Federal grants upon approval of DEPUTY SHERIFF, CHIEF (government ser.). Checks permit prior to hook-up of commercial establishment's burglar alarm to department's communication system. Analyzes and resolves or assists subordinates in resolving work problems. Estimates annual expenditures, prepares budget, and submits to superior for review. Directs staff in preparation of activity and statistical reports.
GOE: 07.01.06 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

377.137-010 DEPUTY SHERIFF, COMMANDER, CIVIL DIVISION (government ser.)

Supervises and coordinates activities of personnel engaged in executing mandates of civil court: Reviews contents of orders, such as summonses, garnishments, property seizures, and arrest orders, for adherence to state laws and county ordinances. Assigns cases to DEPUTY SHERIFF, CIVIL DIVISION (government ser.) for execution of court orders. Discusses cases with subordinates and recommends course of action. Prepares legal notices of *sheriff's sales* by arranging for posting in public places and mailing copy to newspapers. Oversees or conducts sale of real and personal property legally confiscated by county. Reviews reports to determine progress and disposition of cases. Oversees collection, recording, and depositing of legal fees gathered by subordinates. Examines civil division accounts and financial records for completeness and accuracy. Submits data for audits by state and county officials. Writes reports on civil division activities and submits to superiors. Disciplines staff for violation of regulations and resolves personnel problems. Performs duties such as serving civil court orders, seizing property, and making arrests.
GOE: 04.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 7 DLU: 77

377.137-014 DEPUTY SHERIFF, COMMANDER, CRIMINAL AND PATROL DIVISION (government ser.) alternate titles: squad leader; watch commander

Supervises and coordinates activities of one or more squad units in law enforcement activities of patrol and criminal division of county sheriff's department: Reviews duty log of previous shift. Assigns units to posts based on activities of log or on order of DEPUTY SHERIFF, CHIEF (government ser.). Tours patrol areas to ensure execution of orders and adherence to divisional work procedures. Inspects uniform appearance of officers and checks patrol vehicles for conformity to standards. Directs squad activities in cases of civil unrest or emergency to coordinate deployment of human resources and weapons, first aid units, sniper-suppression teams, search-rescue units, and mounted forces. Consults with state and local law enforcement agencies to provide or obtain information. Prepares reports about patrol activities, squad efficiency, discipline, and personnel evaluation and submits reports to superior. Prepares shift schedules and human resource projections. Conducts hearings in cases of misconduct of subordinates. Evaluates reports on undercover operations, determines priority, and assigns personnel to cases. Supervises officers in obtaining court orders and oversees procedures involved with arrests, fingerprinting, and filing of charges. Trains officers in police techniques. Assists subordinates in operations, such as surveillance, raids, and arrests. May speak before civic groups on law enforcement topics. May act as receiving officer for division when accepting delivery of equipment and supplies. May act as extradition officer for division. May perform duties of absent DEPUTY SHERIFF, CHIEF (government ser.).
GOE: 04.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

377.137-018 DEPUTY, COURT (government ser.)

Supervises and coordinates activities of court peace officers engaged in providing security and maintaining order within individual courtrooms and throughout courthouse: Tours and inspects duty stations of BAILIFF (government ser.) to ensure compliance with regulation job duties and correct appearance. Patrols courthouse to quell disturbances and to keep order. Trains newly appointed officers in performance of job duties. Communicates with COURT CLERKS (government ser.) to identify day's court calendar. Prepares and schedules work assignments of court officers, and issues daily duty assignments. Prepares jury's meal vouchers for court official assigned to escort jurors to restaurant. Secures lodging facilities and transportation for jurors deliberating lengthy trials. Prepares and submits activity and time reports to DEPUTY SHERIFF, CHIEF (government ser.). May witness name selection list of prospective jurors to ensure impartiality. May perform duties of BAILIFF (government ser.).
GOE: 04.01.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

377.167-010 DEPUTY SHERIFF, CHIEF (government ser.)

Directs and coordinates activities of county sheriff's department: Schedules work assignments and deployment of human resources in patrol division and transmits orders to subordinate officers for execution. Supervises investigations of narcotics traffic and auto theft, evaluates progress with investigators, and plans actions, such as raids, surveillance, or arrests. Issues funds to undercover operatives to buy information or contraband. Advises subordinates of procedures required to secure search and bench warrants. Reviews available evidence for suitability and consults with district attorney in preparation of grand jury cases. Develops departmental procedures to serve as guidelines for proper conduct of patrol division activities, based on legal information and previous law enforcement experience. Monitors effectiveness of procedures through follow-up with patrol officers. Reviews daily patrol activity log prepared by subordinates. Conducts meetings of patrol officers to evaluate operations and efficiency of squad members. Investigates civilian complaints against division members and determines action to be taken based on evidence secured. Disciplines division members for violation of intradepartmental rules and regulations. Resolves personnel problems of division members or refers problems to supervisor if no solution is found. Inspects firearms in division armory to ensure operational readiness. Collects and analyzes data on division activities. Prepares regular and supplemental budgets for division and submits to superior. Requisitions equipment and services for division and assumes responsibility for receipt of items. Writes reports concerning division activities and submits to sheriff. Addresses civic and educational groups on law enforcement subjects. Conducts training sessions in police training school and within division and assumes field command of division during emergency operations.
GOE: 04.01.01 STRENGTH: S GED: R4 M3 L4 SVP: 8 DLU: 77

377.263-010 SHERIFF, DEPUTY (government ser.)

Maintains law and order and serves legal processes of courts: Patrols assigned area to enforce laws, investigate crimes, and arrest violators. Drives vehicle through assigned area, observing traffic violations and issuing citations. Assumes control at traffic accidents to maintain traffic flow, assist accident victims, and investigate causes of accidents. Investigates illegal or suspicious activities of persons, quells disturbances, and arrests law violators. Locates and takes persons into custody on arrest warrants. Transports or escorts prisoners between courtrooms, prison, and medical facilities. Serves subpoenas and summonses [PROCESS SERVER (business ser.)] and keeps record of dispositions. Keeps order in courtroom [BAILIFF (government ser.)]. May operate radio to deliver instructions to patrol units. May assist in dragging river to locate bodies.
GOE: 04.01.02 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

377.264-010 IDENTIFICATION OFFICER (government ser.)

Collects, analyzes, classifies and photographs physical evidence and fingerprints to identify criminals: Searches for evidence and dusts surfaces to reveal latent fingerprints. Photographs crime site and fingerprints to obtain record of evidence. Lifts print on tape and transfers to permanent record cards. Vacuums site to collect physical evidence and submits to SUPERVISOR, IDENTIFICATION AND COMMUNICATIONS (government ser.) for verifications. Photographs, fingerprints, and measures height and weight of arrested suspects, noting physical characteristics, and posts data on record for filing. Prepares and photographs plastic moulage of footprints and tire tracks. Compares fingerprints obtained with suspect or unknown files to identify perpetrator [FINGERPRINT CLASSIFIER (government ser.)]. Manipulates *mask mirror* on specialized equipment to prepare montage of suspect according to description from witnesses. May fingerprint applicant for employment or federal clearance and forward prints to other law enforcement agencies. May testify in court as qualified fingerprint expert.
GOE: 07.01.06 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

377.267-010 DEPUTY UNITED STATES MARSHAL (government ser.)

Enforces law and order under jurisdiction of federal courts: Receives prisoners into federal custody. Escorts prisoners to and from jails and courts, and guards prisoners during hospitalization. Provides protection to court personnel, jurors, and witnesses or their families. Serves civil and criminal writs. Reviews records, gathers information, and traces and arrests individuals named in criminal warrants. Assists federal agencies in matters such as investigations, raids, and arrests as directed. Seizes property pursuant to court orders.
GOE: 04.01.02 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 86

377.363-010 DEPUTY SHERIFF, GRAND JURY (government ser.) alternate titles: deputy, grand jury

Guards grand jury room and district attorney's offices to provide security: Searches premises to ensure security of rooms. Questions individuals entering area to determine purpose of business and directs or reroutes individuals to destinations. Arrests persons violating law, and summons patrol unit to take custody. Notifies sheriff's patrol units of need for assistance or medical aid. Requests prisoner's arrest records be sent by criminal identification unit to DISTRICT ATTORNEY (government ser.). Prepares and validates receipts to reimburse witnesses for travel expenses. Occasionally transports prisoners between jail, district attorney's office, and penitentiary for questioning, trial, or incarceration.
GOE: 04.02.03 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 77

377.667-010 BAILIFF (government ser.) alternate titles: court officer

Maintains order in courtroom during trial and guards jury from outside contact: Checks courtroom for security and cleanliness. Assures availability of sundry supplies for use of JUDGE (government ser.) Enforces courtroom rules of behavior and warns persons not to smoke or disturb court procedure. Collects and retains unauthorized firearms from persons entering courtroom. Stops people from entering courtroom while JUDGE (government ser.) charges jury. Provides jury escort to restaurant and other areas outside of courtroom to prevent jury contact with public. Guards lodging of sequestered jury. Reports need for police or medical assistance to sheriff's office. May advise attorneys of dress required of witnesses. May announce entrance of JUDGE (government ser.).
GOE: 04.02.03 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

377.667-014 DEPUTY SHERIFF, BUILDING GUARD (government ser.) alternate titles: deputy, building guard

Patrols courthouse, guards court, and escorts defendants: Patrols courthouse to provide security. Escorts defendants to and from courtroom and stands guard during court proceedings. Records daily activities in log. May operate vehicle to transport prisoners to penal institutions. May direct traffic in courthouse parking areas.

GOE: 04.02.03 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

377.667-018 DEPUTY SHERIFF, CIVIL DIVISION (government ser.)
Serves orders of civil court: Delivers court orders, such as subpoenas, garnishments, property executions, commitments and show-cause orders to individuals. Collects money from garnishee and issues receipt. Confiscates real or personal property by court order for disposal at *sheriff's sale* and posts notice of sale in public places. Serves warrants and evicts persons from property designated by court order. Submits written report on disposition of assigned cases to superior. May conduct or assist at sheriff's sale.
GOE: 04.01.02 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

378 ARMED FORCES ENLISTED PERSONNEL

This group includes occupations, not elsewhere classified, concerned with protecting the nation from enemies and maintaining peace and order during times of martial law or civil disobedience.

378.132-010 FIELD ARTILLERY SENIOR SERGEANT (military ser.)
Supervises and coordinates activities of personnel engaged in direction of artillery fire, target acquisition, operation of field artillery, operation of radar equipment, and operation of survey and fire direction equipment incident to control of artillery fire and naval gunfire: Prepares field orders, training, and status reports, and intelligence reports. Advises superior on assignments, promotions, and other matters related to troop welfare. Prepares schedule for unit training. Conducts classes on unit drill, military courtesy, and similar subjects. Assists supervisor on inspection tour of artillery units, and prepares notes on discrepancies found. Initiates corrective action to correct discrepancies.
GOE: 05.03.05 STRENGTH: L GED: R3 M3 L3 SVP: 8 DLU: 77

378.137-010 INFANTRY UNIT LEADER (military ser.)
Supervises or assists in supervision of personnel during training and tactical employment of infantry unit: Directs personnel in preparing weapons and equipment for movement and combat operations. Directs personnel in establishment of unit command post and assists in operation of command post. Assists supervisor in formulating plans of employment of unit and in directing and leading infantry unit. Assists supervisor in coordinating employment of unit's fire and support weapons. Inspects unit weapons and equipment to determine functioning condition of weapons and equipment and initiates action to correct deficiencies. Directs personnel in preparation of unit correspondence, reports, schedules, and rosters. Directs personnel in distribution of ammunition, food, and other supplies.
GOE: 04.02.02 STRENGTH: V GED: R3 M2 L2 SVP: 7 DLU: 77

378.161-010 COMBAT SURVEILLANCE AND TARGET ACQUISITION NONCOMMISSIONED OFFICER (military ser.)
Supervises and coordinates activities of personnel engaged in providing combat surveillance and target acquisition information, such as sound, flash, or survey, in support of field artillery units: Confers with firing battery personnel to coordinate target acquisition and combat surveillance activities and to provide liaison between target acquisition or combat surveillance units and artillery units. Advises commanding officer on matters related to troop welfare, including personnel assignments, discipline, and training needs. Directs personnel in preparing charts, maps, and overlays.
GOE: 05.03.05 STRENGTH: M GED: R3 M3 L3 SVP: 7 DLU: 77

378.227-010 MARKSMANSHIP INSTRUCTOR (military ser.)
Instructs personnel in rifle, pistol, and shotgun marksmanship: Explains and demonstrates weapon safety, firing positions, sight picture, and alignment, breath and trigger control, and other specified fundamentals and techniques of marksmanship: Instructs personnel in nomenclature, weapon disassembly, weapon operation, weapon stoppages, and immediate corrective action for small arms weapons. Explains range safety regulations. Inspects small arms weapons to ensure that weapons are clear, properly lubricated, and in designated operating condition. Observes personnel during firing to ensure that safety procedures are followed. Offers corrective advice to personnel to improve marksmanship and to aid in correcting weapon malfunctions. Scores field firing results to include target detection, range estimation, firing positions, and other marksmanship principles.
GOE: 11.02.01 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

378.227-014 RECRUIT INSTRUCTOR (military ser.) alternate titles: drill sergeant
Instructs newly recruited military personnel, in accordance with training schedules and orders: Orients recruits in fundamentals of service life, discipline, physical fitness, pride and love of service and country. Trains recruits in close order drill. Instructs recruits in nomenclature, disassembly, assembly, and functioning of small arms weapons; and assists in weapons marksmanship instruction. Instructs recruits in general orders (standing requirements) for sentinels, interior guard duty, personal hygiene, first aid, military posture, and care of clothing and equipment. Lectures on military history and tradition, customs of the armed services, military courtesy, and regulations. Evaluates recruit performance in all facets of training. Assists superior in conduct of parades and reviews; maintains records and prepares reports. May instruct personnel in conduct of hand-to-hand combat and bayonet drill.
GOE: 11.02.01 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

378.227-018 SURVIVAL SPECIALIST (military ser.)
Instructs personnel in survival and rescue techniques and procedures and on how to evade, escape, and resist enemy interrogation, exploitation, and political indoctrination as prisoner of war: Demonstrates methods of constructing emergency shelter, building animal or fish traps and snares, improvising clothing and equipment and recognizing, procuring, preparing, and preserving water and various plant and animal life. Demonstrates use of life support and recovery equipment, basic survival kit items, and application of survival medicine. Instructs personnel in use of support and recovery equipment and procedures for signaling and guiding search vehicles. Discusses and demonstrates principles and techniques of escape and evasion, penetration of barriers, camouflage, and organization of prisoner of war groups.
GOE: 11.02.01 STRENGTH: V GED: R3 M2 L3 SVP: 5 DLU: 77

378.267-010 COUNTERINTELLIGENCE AGENT (military ser.)
Collects, evaluates, and disseminates counterintelligence information: Investigates activities of enemy agents, collaborationists or other specified personnel known or suspected to have knowledge or record of counterintelligence information. Interrogates suspects, informants, and witnesses while conducting investigations to obtain information pertaining to activities, such as actual, attempted, or suspected treason, sedition, subversion, disaffection, espionage, and sabotage. Conducts security surveys and inspections of installation, activities, and personnel. Evaluates information obtained and recommends remedial action. Prepares administrative forms and correspondence incident to granting security clearances. Conducts security lectures. Directs personnel engaged in general security indoctrination for military personnel or civilian employees. May plan, organize, and coordinate activities of counterintelligence agents and teams.
GOE: 04.01.02 STRENGTH: L GED: R5 M4 L5 SVP: 7 DLU: 77

378.267-014 DISASTER OR DAMAGE CONTROL SPECIALIST (military ser.)
Assists disaster preparedness officer in preparation and monitoring of disaster preparedness plans and procedures: Inspects protective equipment to determine operational readiness. Directs personnel in repair of equipment. Directs location, marking, and stocking of radiation shelters. Confers with superiors and civil defense personnel to provide information on radiological monitoring and survey, biological and chemical weapons and effects; protective measures and decontamination methods; and biological, chemical, and nuclear accident control to assist superior in development of local emergency plans. Tests suspected area to detect presence of toxic agents, using chemical detection equipment and identifies type of chemical agent. Tests areas for radioactive contamination, using portable measuring instruments. Collects biological samples and tests and identifies biological agents. Plots area of contamination on map. Informs superior of contaminated area and type of contamination. Recommends to superior method to be followed to decontaminate personnel, equipment, and area. Informs superior when decontamination has been completed. Conducts training in methods and techniques of defense during chemical, biological, and nuclear warfare.
GOE: 04.02.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

378.281-010 TARGET AIRCRAFT TECHNICIAN (military ser.)
Services, repairs, and overhauls drone target aircraft and aircraft engines: Repairs, replaces, and assembles parts, such as wings, cowlings, stabilizers, and propeller assembly, using power tools and handtools to rebuild or replace airframe or airframe components. Replaces worn or damaged parts, such as spark plugs, parachute, and battery, using handtools. Tests aircraft engine operation. Places aircraft on launching device, including catapult launcher. Installs JATO (Jet Assist Take-Off) or other launching propellant. Starts aircraft, using portable starting equipment. Adjusts carburetor to regulate fuel mixture to attain optimum engine performance. Performs preflight inspection of target aircraft. Inspects launching device prior to each launch. Diagnoses electronic malfunctions. Repairs and replaces defective parts and wiring.
GOE: 05.10.02 STRENGTH: M GED: R3 M3 L2 SVP: 6 DLU: 77

378.362-010 SOUND RANGING CREWMEMBER (military ser.)
Operates sound ranging equipment to detect location of enemy artillery fire during combat or training, serving as member of sound ranging crew: Patrols area and selects operating site. Deploys and positions sound detection equipment and monitors equipment to detect sounds of enemy artillery fire. Records sound data and computes location of enemy artillery. Notifies friendly artillery unit, using radio, of direction and location of enemy artillery.
GOE: 05.03.05 STRENGTH: V GED: R3 M3 L3 SVP: 5 DLU: 77

378.363-010 ARMOR RECONNAISSANCE SPECIALIST (military ser.)
Drives military wheeled or tracked vehicle and observes area to gather information concerning terrain features, enemy strength, and location, serving as member of ground armored reconnaissance unit: Reports information to commander, using secure voice communication procedure. Writes field messages to report combat reconnaissance information. Drives armored, tracked, and wheeled vehicles in support of tactical operations to harass, delay, and destroy enemy troops. Directs gunfire from vehicle to provide covering or flanking fire against enemy attack. Prepares and employs night firing aids to assist in delivering accurate fire. Tests surrounding air to determine presence and identity of chemical agents, using chemical agent detecting equipment, radiac, or radiological monitoring device. Drives vehicle to bridge locations to mark routes and control traffic. Requests and adjusts mortar and artillery fire on targets and reports effectiveness of fire.
GOE: 04.02.02 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

378.367-010 ARTILLERY OR NAVAL GUNFIRE OBSERVER (military ser.)
Observes and reports by specified means of communications, enemy and simulated enemy locations to coordinate and adjust artillery or naval gunfire during

combat or training: Selects sites for observation posts. Sets up observation and communication instruments and equipment. Informs infantry, artillery, or naval gunfire ships of enemy activity, location of friendly troops and other pertinent intelligence data, using radio. Confers with artillery and gunship personnel to request and adjust artillery and naval gunfire. Confers with fire direction center personnel to report gunfire results based on knowledge of characteristics, capabilities, and limitations of artillery, mortar, rocket, and naval gunfire, using radio.
GOE: 05.03.05 STRENGTH: V GED: R3 M3 L2 SVP: 4 DLU: 77

378.367-014 FIELD ARTILLERY OPERATIONS SPECIALIST (military ser.)
Collects, records, and evaluates information pertinent to location of enemy weapons for use by friendly artillery, using chronograph, gun direction computer, and other fire direction equipment: Observes enemy fire, using transit and records angle to firing position. Measures velocity of projectiles fired from enemy weapon, using chronograph. Determines direction of enemy weapons, using gun direction computer. Collects data and constructs firing chart to plot target location. Computes azimuth (direction), elevation, and other firing data (information to engage target). Communicates firing data to artillery unit personnel, using radio and transmits artillery fire adjustment data to artillery unit.
GOE: 05.03.05 STRENGTH: L GED: R4 M4 L3 SVP: 5 DLU: 77

378.367-018 FLASH RANGING CREWMEMBER (military ser.)
Measures range and horizontal and vertical angles to enemy artillery flashes and projectile bursts, using flash ranging equipment in observation post: Selects location site for observation post. Performs traverse survey to establish coordinate location of observation post. Orients and calibrates flash ranging instruments. Observes enemy weapon flashes during firing and projectile bursts, using flash ranging instrument, and records horizontal and vertical angles to flash or burst. Computes data to determine distance and direction of enemy emplacement. Confers with artillery personnel to report location of enemy forces and effectiveness of friendly fire weapons.
GOE: 05.03.05 STRENGTH: V GED: R4 M4 L3 SVP: 5 DLU: 77

378.367-022 INFANTRY OPERATIONS SPECIALIST (military ser.)
Collects, evaluates, and prepares operation and intelligence information at battalion or higher headquarters for combined arms combat operations: Assists superior in organizing and operating unit operations section when deployed in field. Prepares operation maps, maintains situation maps, indicating location, strength, tactical deployment and emplacements of friendly and enemy units. Receives and records on situation maps pertinent information obtained from intelligence and reconnaissance reports, using conventional signs and symbols. Prepares and maintains operations journal which contains briefs of important written and oral messages received and sent, notations of periodic reports, orders, and specified matters that pertain to section or unit. Assists superior in preparing war diaries and special reports upon completion of operation. Prepares orders, training orders, memorandums, schedules, status, and periodic reports.
GOE: 04.02.02 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 77

378.367-026 OPERATIONS AND INTELLIGENCE ASSISTANT (military ser.)
Collects, consolidates, and evaluates air defense intelligence information received from ground observers; radar sections; other supportive units; and prepares and revises operations and situation maps: Communicates with intelligence personnel from radar, ground observation, and other supportive units to collect air defense information, using field telephone and radiotelephone equipment, and plots early warning information on situation board. Prepares and revises operations and situation maps to indicate location, strength, and tactical employment of friendly and hostile units. Alerts personnel of firing batteries as to grid locations of incoming targets, using radio.
GOE: 04.02.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

378.367-030 RECONNAISSANCE CREWMEMBER (military ser.)
Observes, locates, and reports enemy force movements and terrain characteristics from vantage point: Conducts surveillance from vantage post to observe such places as bridges, airfields, roads, and rivers to detect enemy movements. Observes beach areas to determine possible amphibious landing site. Requests artillery, air, and naval gunfire to destroy enemy forces, using radio. Fires weapons, such as pistol, rifle, and grenade launcher. Studies maps and aerial photographs to locate enemy force.
GOE: 04.02.02 STRENGTH: V GED: R3 M3 L3 SVP: 4 DLU: 77

378.382-010 AIRBORNE SENSOR SPECIALIST (military ser.)
Operates airborne sensing equipment to locate and identify friendly and enemy aircraft: Places and secures sensing and monitoring equipment, such as IFF (Identification Friend or Foe), infrared, and radar, in aircraft. Pushes buttons, presses switches and turns knobs to start, control, and stop equipment. Observes equipment scopes and indicators to obtain data to determine location and identity of aircraft. Contacts Command Post personnel, using radio, to report presence of enemy aircraft. Examines equipment to detect malfunctions. Replaces malfunctioning components, including tubes and circuit boards, to repair equipment, using handtools.
GOE: 05.03.05 STRENGTH: V GED: R3 M3 L3 SVP: 6 DLU: 77

378.382-014 DEFENSIVE FIRE CONTROL SYSTEMS OPERATOR (military ser.)
Operates inflight fire control system to detect intrusion of enemy aerial vehicles and to evade or destroy airborne threat during combat or training: Observes radar scope to detect blips indicative of aerial vehicles. Identifies vehicles following manual procedures. Notifies superior of presence of enemy aircraft, missile, or other aerial vehicle. Presses buttons as directed by superior to activate automatic tracking system and to automatically fire weapons and infrared missile launcher to destroy enemy or simulated threat. Diagnoses equipment malfunction. Replaces defective parts and wiring and adjusts mechanical parts.
GOE: 05.03.05 STRENGTH: S GED: R3 M2 L3 SVP: 7 DLU: 77

378.382-018 UNATTENDED-GROUND-SENSOR SPECIALIST (military ser.)
Emplaces, records location, and operates remote surveillance devices and other monitoring equipment to gather intelligence information relating to enemy location, direction, and speed of movement: Examines air photographs and contour maps to determine best location for surveillance devices and monitoring equipment. Assists superiors in sensing equipment emplacement. Selects radio-relay sensor sites, and emplaces and activates relay stations. Installs and operates communications equipment. Uses authentication codes, signal operating instructions, and standing signal instructions when operating communication equipment. Camouflages sensor positions and tactical field positions. Observes monitoring, recording, and display devices and interprets and reports information gathered. Computes density, direction, rate of movement, and nature of targets detected. Performs preventive maintenance on unattended ground sensors, relay equipment, monitoring devices, and ancillary equipment. May recommend appropriate action and reaction to be taken and request supporting fire on targets.
GOE: 05.03.05 STRENGTH: V GED: R3 M3 L3 SVP: 6 DLU: 77

378.464-010 ANTITANK ASSAULT GUNNER (military ser.)
Positions, fires, and maintains antitank and assault weapons, such as recoilless rifle, portable flame thrower, and multishot portable flame weapon: Prepares weapons and equipment for movement. Designates location for and positions weapons. Computes firing data, loads and aims weapons preparatory to firing. Fires antitank and assault weapons at fixed and moving targets. Assists supervisor in leading antitank or assault units to assault positions during combat or training operations, furnishing supporting fire for other infantry units. Assists supervisor in coordinating unit's fire and movement with that of unit supported, adjacent units, and other support units. Constructs and camouflages positions and ground obstacles for antitank and assault squads. Employs, arms, disarms, and removes mines used for local security and antitank defense. Protects weapons and equipment against chemical warfare agents and decontaminates weapons and equipment when exposed to chemical attack. Performs minor repairs to weapons and equipment. May direct fire of other infantry crew-served weapons.
GOE: 04.02.02 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

378.663-010 VULCAN CREWMEMBER (military ser.)
Fires vehicle mounted Vulcan artillery system (multibarrel rapid firing weapon) during combat and training operations: Drives vehicle to transport Vulcan system into firing position. Lifts and carries ammunition from vehicle storage to Vulcan firing platform. Inserts ammunition into firing tube to load Vulcan for firing. Presses button to engage firing mechanism that automatically fires system. Operates support equipment, such as power generators, fire control devices, and radios. Repairs and maintains support equipment, using handtools, power tools, and measuring instruments, to ensure optimum operational efficiency.
GOE: 05.03.05 STRENGTH: V GED: R2 M1 L1 SVP: 3 DLU: 77

378.682-010 REDEYE GUNNER (military ser.)
Operates and fires Redeye Guided Missile Weapon System (short range ground to air missile) to destroy low flying enemy aircraft: Observes low flying enemy aircraft or receives radar information concerning low flying aircraft. Visually identifies aircraft detected. Evaluates enemy threat, and establishes priority of engagement. Notifies superior of target. Presses switches, upon order, to activate automatic tracking system and fires missile at target. Confers with supervisor, using radio to transmit results of firing. Selects appropriate primary and alternate positions for Redeye employment, considering capabilities and limitations of weapon, friendly troop location and situation in area to be defended, and probable aircraft tactics and directions of attack.
GOE: 05.03.05 STRENGTH: V GED: R3 M3 L3 SVP: 3 DLU: 77

378.682-014 SMOKE AND FLAME SPECIALIST (military ser.)
Operates and controls smoke or flame and support equipment, such as self-propelled flamethrowers, smoke generators, and radio equipment, to provide smokescreen or flame support for military forces during combat or training: Observes terrain and weather conditions to determine location for smoke generators and smoke munitions. Starts smoke generator to form smokescreen. Observes smokescreen to ensure proper screening without interference to mission of adjacent friendly units. Adjusts smoke generators as needed to obtain optimum quality and quantity of screening smoke. Assists in loading flamethrower and on-vehicle weapons. Moves firing controls and fire control instruments to operate and fire vehicular mounted weapons and self-propelled flamethrowers. Moves driver controls to start, stop, and steer self-propelled flamethrower vehicles. Receives and stores on-vehicle materials, such as rations, fuel, and ammunition. Confers with squad or unit personnel to report observance of targets or other combat information, using visual signal, radio or telephone, in conformance with terminology and security procedures. Performs preventive maintenance and repairs on equipment and weapons, such as flamethrowers, radio equipment, and smoke generators.

GOE: 05.03.05 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

378.683-010 AMPHIBIAN CREWMEMBER (military ser.)
Drives or steers military amphibious equipment, such as tractors and armored vehicles on land and sea to transport personnel, supplies, and equipment in support of combat or training operations: Loads supplies and equipment aboard vehicle. Confers with superior to determine course to be followed. Drives or steers vehicle to transport personnel, supplies, and equipment between ship and shore. Confers with personnel aboard ship and on land, using radio to transmit and receive information concerning enemy location, troop movement, and enemy gunfire encountered. Loads ammunition into breech of weapon. Aims and fires weapon at enemy emplacement.
GOE: 04.02.02 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

378.683-014 POWERED BRIDGE SPECIALIST (military ser.)
Operates mobile military assault bridge vehicle and other power bridging equipment on land and water to position and connect bridge and raft sections across streams, rivers, and other water obstacles: Selects most suitable site for entering of streams and other water obstacles based on physical characteristics of water obstacles, such as depth, distance across, and swiftness of water, using depth charges, range indicators, and tide and current tables. Manipulates driver's controls and helm to start, stop, and steer vehicle and connects with other vehicles to form rafts and bridges. Pumps water out of vehicle, using bilge pump. Confers with other vehicle operators and unit personnel, using radio and interphone to provide information concerning progress of work, enemy troop movement, and similar tactical information.
GOE: 05.11.04 STRENGTH: V GED: R3 M3 L3 SVP: 5 DLU: 77

378.683-018 TANK CREWMEMBER (military ser.)
Drives military tank and fires tank weapons working as member of tank crew: Prepares tank and equipment for movement and combat. Drives tank over various types of terrain to locate target. Loads ammunition into breech of weapon. Aims weapon, using tank fire control equipment and fires weapon at target. Camouflages position and protects tank and equipment against chemical warfare agents. Decontaminates tank and equipment when exposed to contaminants.
GOE: 04.02.02 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

378.684-010 CAMOUFLAGE SPECIALIST (military ser.)
Camouflages military field equipment and installations, using items such as nets, paint, brush, and grass: Observes field areas to determine types of camouflage required. Applies specified garnishes to nets to prepare nets for use in camouflaging activities. Drapes and covers field equipment and activities with nets, employing rigging techniques. Camouflages equipment and structures, using paint and natural materials, such as grass and brush. Fabricates camouflage materials and decoys in shop, using handtools. Erects decoys, runs misleading tracks to decoys, and simulates activity to confuse enemy forces.
GOE: 04.02.02 STRENGTH: H GED: R2 M2 L2 SVP: 4 DLU: 77

378.684-014 COMBAT RIFLE CREWMEMBER (military ser.)
Opposes members of enemy ground force in effort to destroy or capture enemy forces, using rifle, during combat or training operations, and serving as member of infantry unit: Constructs field fortifications, including wire entanglements and road blocks, using handtools, barbed wire, and lumber. Camouflages combat equipment and weapons, using items such as paint, nets, leaves, and brush. Places and activates antitank or antipersonnel mines in mine field. Decontaminates weapons and equipment when exposed to chemical or nuclear contamination, using specified procedures. Observes compass, aerial photographs, and maps to determine field position for troop movements. Examines equipment and weapons to detect malfunctions. Repairs weapons and equipment, using items such as handtools, oil, and rags. Fires machine guns, grenade launchers, and rifles to inflict casualties on enemy force.
GOE: 04.02.02 STRENGTH: V GED: R2 M1 L1 SVP: 3 DLU: 77

378.684-018 FIELD ARTILLERY CREWMEMBER (military ser.)
Loads and fires field artillery gun or howitzer during combat or training situations: Selects firing site and positions cannon according to orders. Camouflages position if terrain and situation require camouflage. Loads ammunition into breech of cannon. Fires cannon upon order. Realigns cannon position to engage target and repeats cannon firing procedures to fulfill mission requirements on target. Inspects weapon and replaces worn or unserviceable parts, such as gears, springs, and ejectors. Cleans and lubricates hubs, wheels, and similar assemblies, using handtools, brushes, solvents, and rags.
GOE: 04.02.02 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

378.684-022 INFANTRY INDIRECT FIRE CREWMEMBER (military ser.)
Positions and fires mortar during combat or training operations: Selects site and positions mortar utilizing concealment and camouflage procedures to prevent detection by enemy. Studies maps and aerial photographs to locate friendly and enemy positions. Confers with friendly unit personnel and furnishes information concerning enemy location, troop movement and similar tactical information. Drops ammunition into mortar to discharge and fire ammunition at target. Observes projectile burst and readjusts mortar to obtain effective hit on target.
GOE: 04.02.02 STRENGTH: V GED: R2 M1 L1 SVP: 5 DLU: 77

378.684-026 INFANTRY WEAPONS CREWMEMBER (military ser.)
Deploys, positions, fires, and maintains crew-served weapons, such as recoilless rifle, tank destroying missile system, or light machine guns, during training or combat mission: Disassembles, cleans, and loads weapons and equipment for movement and use in combat. Designates location of gun, sector of fire, and targets. Computes firing data, aims, and fires weapons at fixed and moving targets, employing direct fire techniques. Assists superior in leading and directing personnel in combat missions, and during maneuvers or tactical problems. Fires weapons at enemy forces to support and assist other infantry units. Assists superior in coordinating fire and movement with that of other friendly units. Constructs and camouflages weapon positions and ground obstacles. Emplaces and arms, or disarms and removes mines used for local security. Protects weapons and equipment against attack from chemical warfare agents. Decontaminates weapons and equipment when exposed to chemical attack. Performs preventive maintenance, routine tests, and authorized minor repairs to weapons and equipment.
GOE: 04.02.02 STRENGTH: V GED: R2 M1 L1 SVP: 3 DLU: 77

378.684-030 LIGHT AIR DEFENSE ARTILLERY CREWMEMBER (military ser.)
Fires variety of light air defense artillery automatic weapons or machine guns during combat or in training, serving as member of light air defense artillery unit: Removes ammunition from truck and stacks ammunition in storage pit. Positions light air defense artillery automatic weapons and machine guns in specified location. Camouflages ammunition, weapons, and equipment, using nets, paint, and similar items. Installs wire to specified locations to establish field communications. Loads ammunition in breech of weapon or machine gun and fires weapon or machine gun on order at aerial and surface targets during combat or training.
GOE: 04.02.02 STRENGTH: V GED: R2 M1 L1 SVP: 3 DLU: 77

378.687-010 COMBAT SURVEILLANCE AND TARGET ACQUISITION CREWMEMBER (military ser.)
Assists crewmembers of sound, flash, and other target acquisition units in detecting sound or flash of enemy artillery: Assists crewmembers to emplace sound, flash, or other target acquisition equipment. Plots sound or flash data on maps. Assists personnel in operating searchlights. Lays wire to establish field communications. Cleans and lubricates vehicles and equipment.
GOE: 05.03.05 STRENGTH: V GED: R2 M2 L2 SVP: 2 DLU: 77

379 PROTECTIVE SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with protective service.

379.132-010 SUPERVISOR, TELECOMMUNICATOR (government ser.)
Supervises and coordinates activities of workers engaged in receiving emergency or nonemergency calls, dispatching personnel and equipment, and providing prearrival instructions to callers: Prepares work schedules to ensure that sufficient shift personnel are available for work load demands, using knowledge of supervisory techniques, department regulations, and procedures. Teaches emergency medical dispatch course to new employees, using dispatch simulator. Reviews dispatch office operations to identify technical and operational training needs. Teaches courses dealing with hazardous materials, highrise fires, and medical triage to update training for TELECOMMUNICATOR (government ser.) 379.362-018. Meets with committees composed of representatives from fire and police departments, public, and other interested groups to develop, review, and update policies and procedures for dispatch office. Pushes buttons, flips power switches, and reads gauges to determine serviceability of backup emergency equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 07.04.05 STRENGTH: S GED: R4 M2 L4 SVP: 7 DLU: 86

379.137-010 SUPERVISOR, ANIMAL CRUELTY INVESTIGATION (nonprofit org.) alternate titles: animal humane agent supervisor; inspector
Supervises and coordinates activities of workers engaged in investigating complaints of cruelty to animals, inspecting establishments housing animals and monitoring public exhibitions featuring animals to enforce humane laws: Assigns ANIMAL TREATMENT INVESTIGATORS (nonprofit org.) to geographical work areas to investigate complaints. Inspects workers for proper attire. Telephones or writes to complainants to resolve complaints or to obtain additional information. Directs worker to investigate emergency complaints received, using telephone or two-way radio. Advises public and workers of provisions and applications of humane laws. Interviews and recommends hiring and firing of employees. Maintains records of workers' daily activities and submits records to superior. Supervises on-the-job training for new workers.
GOE: 11.10.03 STRENGTH: S GED: R4 M2 L4 SVP: 7 DLU: 77

379.137-014 SUPERVISOR, DOG LICENSE OFFICER (nonprofit org.) alternate titles: chief, dog license inspector
Supervises and coordinates activities of workers engaged in enforcing dog license laws and inspecting license books of pet shops: Assigns DOG LICENSERS (nonprofit org.) to crews to assure adequate staff to cover all geographical canvass areas. Reviews work of crews and recommends areas requiring coverage. Checks pet shop license books to assure that license applications and fees have been forwarded. Compares recorded number of dogs sold for period with number of applications completed to assure that pet shop is complying with dog license laws. Records results of visit on control cards. Performs personnel functions, such as interviewing new workers, recommending hiring, and resolving employee grievances.

GOE: 07.04.03 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

379.137-018 WILDLIFE AGENT, REGIONAL (government ser.)
Supervises and coordinates activities of FISH AND GAME WARDENS (government ser.) engaged in enforcing fish and game laws, reporting crops and property damage by wildlife, and compiling biological data: Studies and surveys assigned region to learn topography and available cover and feed for wildlife. Subdivides region into geographical districts and submits request for FISH AND GAME WARDENS (government ser.) to patrol districts. Plans location of access roads, trails, sanitary facilities, boat launching sites, and parking areas, based on number of people using area. Trains and assists subordinates to solve work problems and to interpret directives and regulations. Observes issuance of citations, apprehension of game law violators, and seizure of equipment to verify compliance with laws and regulations. Evaluates and submits efficiency reports on subordinates, and initiates personnel actions such as reprimand, disciplinary action, transfer, or discharge. Addresses school, civic, and sports groups on wildlife and recreational activities. Arranges for witnesses and evidence to be used at court trials of game law violators. Compiles consolidated report of region activities and approves requests for new equipment.
GOE: 04.01.02 STRENGTH: L GED: R5 M4 L4 SVP: 7 DLU: 77

379.137-022 SUPERVISOR, PROTECTIVE-SIGNAL OPERATIONS (business ser.)
Supervises and coordinates activities of workers engaged in monitoring protective-signaling system controls and investigating alarm signals transmitted from subscriber premises: Confers with workers to help resolve difficulties encountered during monitoring of system controls and investigation of alarms. Monitors system equipment displays, scans system operations reports, and talks to subscribers to ensure that systems operate according to company and subscriber specifications. Schedules repair of defective installations and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 07.04.05 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

379.162-010 ALARM OPERATOR (government ser.) alternate titles: fire-alarm dispatcher
Operates municipal fire alarm system, radio transmitter and receiver, and telephone switchboard: Receives incoming fire calls by telephone or through alarm system. Questions caller, observes alarm register that codes location of fire, and scans map of city to determine whether fire is located within area served by city fire department. Determines type and number of units to respond to emergency. Notifies fire station, using radio, and starts alarm system that automatically contacts all fire stations and indicates location of fire. Relays messages from scene of fire, such as requests for additional help and medical assistance. Records date, time, type of call and destination of messages received or transmitted. Maintains activity, code, and locator files. Tests various communications systems and reports malfunctions to maintenance units. May operate telegraph to relay code as back-up if transmitter fails.
GOE: 07.04.05 STRENGTH: S GED: R4 M3 L4 SVP: 6 DLU: 77

379.167-010 FISH AND GAME WARDEN (government ser.) alternate titles: conservation officer; game and fish protector; game warden; guard, range
Patrols assigned area to prevent game law violations, investigate reports of damage to crops and property by wildlife, and compile biological data: Travels through area by car, boat, airplane, horse, and on foot to observe persons engaged in taking fish and game, to ensure method and equipment used are lawful, and to apprehend violators. Investigates reports of fish and game law violations and issues warnings or citations. Serves warrants, makes arrests, and prepares and presents evidence in court actions. Seizes equipment used in fish and game law violations and arranges for disposition of fish and game illegally taken or possessed. Collects and reports information on condition of fish and wildlife in their habitat, availability of game food and cover, and suspected pollution of waterways. Investigates hunting accidents and files reports of findings. Addresses schools and civic groups to disseminate information and promote public relations. May enlist aid of sporting groups in such programs as lake and stream rehabilitation, and game habitat improvement. May assist in promoting hunter safety training by arranging for materials and instructors. May be designated according to specialty as Fish Protector (government ser.); Game Protector (government ser.); or according to assigned patrol as Fish-And-Game Warden, Marine Patrol (government ser.).
GOE: 04.01.02 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

379.227-010 INSTRUCTOR-TRAINER, CANINE SERVICE (government ser.)
Instructs police officers in handling of dogs for police work in canine training facility: Instructs police officers in dog training techniques, such as obedience training, tracking, and crowd control. Demonstrates dog handling techniques with dog on and off leash, using trained dog. Instructs officers on subjects related to use of dogs in police work, such as theory of scent and narcotics and bomb detection. Informs officers (handlers) of health care of dogs and responsibilities of handlers. Observes officer and dog teams during practice sessions, and offers suggestions to improve handling techniques when necessary. Contacts representatives of other police departments and law enforcement agencies throughout country to keep training updated and to schedule training sessions. Conducts tours of facility and explains importance of dogs in police work. Purchases dog food and supplies and directs maintenance of facility.
GOE: 03.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 7 DLU: 86

379.263-010 ANIMAL TREATMENT INVESTIGATOR (nonprofit org.) alternate titles: animal control officer
Investigates animal cruelty and neglect charges and performs related duties to promote compliance with laws regulating animal treatment: Observes areas of alleged violations and interviews available witnesses to determine if laws are being violated. Informs persons perpetrating inhumane acts of laws and penalties for violations. Reports violators to police or requests police to arrest violators. Aids animals in distress by feeding starving animals and freeing trapped animals. Removes animals from inhumane conditions and drives vehicle to transport animals to shelter for treatment and care. Inspects establishments housing or exhibiting animals to ascertain compliance with humane laws. Writes reports of activities.
GOE: 11.10.03 STRENGTH: L GED: R3 M1 L3 SVP: 5 DLU: 77

379.263-014 PUBLIC-SAFETY OFFICER (government ser.)
Patrols assigned beat and responds to emergency calls to protect persons or property from crimes, fires, or other hazards: Patrols assigned area on foot or horseback or using vehicle to regulate traffic, control crowds, prevent crime, or arrest violators. Responds to crimes in progress, initiating actions such as aid to victims and interrogation of suspects. Attends public gatherings to maintain order. Responds to fire alarms or other emergency calls. Forces openings in buildings for ventilation of fire or for entry, using ax or crowbar. Controls and extinguishes fires, using water and chemicals. Administers first aid and artificial respiration to injured persons. Participates in drills and emergency precautionary demonstrations. May inspect establishments for compliance with local regulations. May drive and operate firefighting and other emergency equipment.
GOE: 04.01.02 STRENGTH: V GED: R4 M3 L3 SVP: 7 DLU: 86

379.267-010 WILDLIFE CONTROL AGENT (government ser.)
Controls animal population in geographical district and investigates crop and property damage claims caused by wildlife: Conducts on-site surveys to estimate number of birds and animals, such as deer, pheasant, and mountain fox in designated areas and availability of game food and cover. Recommends changes in hunting and trapping seasons and relocation of animals in overpopulated areas to obtain balance of wildlife and habitat. Implements approved control measures, performing duties such as trapping beavers, dynamiting beaver dams, and tranquilizing and relocating deer, bear, cougar, and other animals. Resurveys area and totals bag counts of hunters to determine effectiveness of control measures. Recommends revised hunting and trapping regulations and other control measures and release of birds for restocking. Searches area of reported property damage for animal tracks, leavings and other evidence to identify specie of animal responsible. Photographs extent of damage, documents other evidence, estimates financial loss, and recommends compensation. Advises owner of methods to remedy future damages, and implements other measures, such as erecting fences, tranquilizing and relocating animal herds and spraying flower beds and bushes with repellants. Performs duties of wildlife agent during hunting season. Gives talks to civic groups, school assemblies and sports organizations to disseminate information about wildlife and department policies.
GOE: 03.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

379.362-010 DISPATCHER, RADIO (government ser.) alternate titles: dispatcher; police radio dispatcher; station operator
Receives complaints from public concerning crimes and police emergencies, broadcasts orders to police radio patrol units in vicinity to investigate complaint, and relays instructions or questions from remote units. Records calls broadcast and complaints received. In some municipalities coordinates all police, fire, ambulance, and other emergency requests, relaying instructions to radio unit concerned. May make operating adjustments to transmitting equipment where station is not automatic and be required to hold federal license. May transmit and receive messages between divisions of own agency and other law enforcement agencies. May monitor silent alarm system to detect illegal entry into business establishments. May contact POLICE OFFICERS (government ser.) I 375.263-014 and GUARDS, SCHOOL-CROSSING (government ser.) 371.567-010 to verify assignment locations.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 4 DLU: 81

379.362-014 PROTECTIVE-SIGNAL OPERATOR (any industry) alternate titles: alarm-signal operator; drop-board operator; dx board operator; operator, circuit; operator, direct wire; signal timer
Reads and records coded signals received in central station of electrical protective signaling system: Interprets coded audible or visible signals received on alarm signal board by direct wire or register tape from subscribers' premises that indicate opening and closing of protected premises, progress of security guard, unlawful intrusions, or fire. Reports irregular signals for corrective action. Reports alarms to police or fire department. Posts changes of subscriber opening and closing schedules. Prepares daily alarm activity and subscriber service reports. May adjust central station equipment to ensure uninterrupted service. May dispatch security personnel to premises after receiving alarm.
GOE: 07.04.05 STRENGTH: S GED: R3 M2 L3 SVP: 5 DLU: 77

379.362-018 TELECOMMUNICATOR (government ser.) alternate titles: dispatcher
Operates communication equipment to receive incoming calls for assistance and dispatches personnel and equipment to scene of emergency: Operates tele-

phone console to receive incoming calls for assistance. Questions caller to determine nature of problem and type and number of personnel and equipment needed, following established guidelines. Scans status charts and computer screen to determine units available. Monitors alarm system signals that indicate location of fire or other emergency. Operates two-way radio to dispatch police, fire, medical, and other personnel and equipment and to relay instructions or information to remove units. Types commands on computer keyboard to update files and maintain logs. Tests communications and alarm equipment and backup systems to ensure serviceability. May provide prearrival instructions to caller, utilizing knowledge of emergency medical techniques. May activate alarm system to notify fire stations.
GOE: 07.04.05 STRENGTH: S GED: R4 M2 L4 SVP: 5 DLU: 86

379.364-010 AUTOMOBILE TESTER (government ser.) alternate titles: motor-vehicle inspector; vehicle-safety inspector

Inspects automobiles and trucks at state-operated inspection station to ensure compliance with state safety requirements: Examines or tests specified components of vehicle, such as brake system, tires, lighting system, directional signals, steering, horn, and exhaust line for evidence of wear, damage, or improper adjustment. Applies inspection sticker to vehicles that pass and rejection sticker to those that do not. May prepare records on condition of each vehicle for follow-up action by owner or police. May perform duties of STATE-HIGHWAY POLICE OFFICER (government ser.) when not assigned to inspection detail. May arrest or direct the arrest of vehicle owners having illegal equipment installed on vehicle. May utilize mechanical, electronic, or electrical devices and instruments to determine condition of vehicle components.
GOE: 05.07.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

379.364-014 BEACH LIFEGUARD (amuse. & rec.)

Patrols public beach area to monitor activities of swimmers and prevent illegal conduct: Observes activities in assigned area on foot, in vehicle, or from tower or headquarters building with binoculars to detect hazardous conditions, such as swimmers in distress, disturbances, or safety infractions. Cautions people against use of unsafe beach areas or illegal conduct, such as drinking or fighting, using megaphone. Rescues distressed persons from ocean or adjacent cliffs, using rescue techniques and equipment. Examines injured individuals, administers first aid, and monitors vital signs, utilizing training, antiseptics, bandages, and instruments, such as stethoscope and sphygmomanometer. Administers artificial respiration, utilizing cardiopulmonary or mouth-to-mouth methods, or provides oxygen to revive persons. Compiles emergency and medical treatment report forms and maintains daily information on weather and beach conditions. Occasionally operates switchboard or two-way radio system to maintain contact and coordinate activities between emergency rescue units.
GOE: 04.02.03 STRENGTH: V GED: R3 M2 L2 SVP: 4 DLU: 86

379.367-010 SURVEILLANCE-SYSTEM MONITOR (government ser.)

Monitors premises of public transportation terminals to detect crimes or disturbances, using closed circuit television monitors, and notifies authorities by telephone of need for corrective action: Observes television screens that transmit in sequence views of transportation facility sites. Pushes hold button to maintain surveillance of location where incident is developing, and telephones police or other designated agency to notify authorities of location of disruptive activity. Adjusts monitor controls when required to improve reception, and notifies repair service of equipment malfunctions.
GOE: 04.02.03 STRENGTH: S GED: R3 M1 L3 SVP: 2 DLU: 86

379.384-010 SCUBA DIVER (any industry) alternate titles: salvage diver

Performs various underwater jobs, wearing diving gear, such as self-contained underwater breathing apparatus, mask, flippers, and insulated suit: Swims from boat, dock, or shore to job site. Dives to locate or recover submerged automobiles, boats, logs, and articles, such as purses, keys, and other valuables. Swims to bottom and fastens lines or chains around heavy objects and attaches to lowered hook. Picks up lightweight objects and carries to surface. May search for bodies. May fish for abalone, crab, or sponge. May use safety line, and communicate with tender by jerking on line. May repair underwater installations. May engage in fire fighting activities.
GOE: 05.10.01 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

379.664-010 SKI PATROLLER (amuse. & rec.)

Patrols ski trails and slope areas to provide assistance and protection to skiers and report condition of trails, ski lifts, and snow cover on slopes: Patrols assigned areas, using skis or snowshoes. Rescues injured skiers and renders first aid or transfers them to waiting ambulance, using toboggan. Notifies medical personnel in case of serious injury where moving skier might prove dangerous. Ensures that no skiers remain on slopes or trails at end of day or during inclement weather. Inspects ski lifts, such as rope tows, T-bar, J-bar, and chair lifts, to report safety hazards and evidence of damage or wear. May pack snow on slopes. May give ski instruction. May participate in skiing demonstrations for entertainment of resort guests. May assist demolition crew to blast for avalanche control.
GOE: 04.02.03 STRENGTH: H GED: R3 M2 L3 SVP: 6 DLU: 77

379.667-010 GOLF-COURSE RANGER (amuse. & rec.) alternate titles: golf-course patroller

Patrols golf course to prevent unauthorized persons from using facilities, keep play running smoothly, and assist injured or ill players: Inspects player and CADDIE (amuse. & rec.) registration and green fee tickets for validity. Prevents players from entering course beyond starting tee. Advises players to speed up or slow down in order to alleviate bottlenecks. Explains rules of game to players to settle disputes. Locates damaged or hazardous areas and marks areas for repair, using lime marker or stake. Cautions players against tearing up turf or otherwise abusing course. Renders first aid to injured or ill players and carries their equipment to clubhouse. Returns lost equipment to owners or to clubhouse. Keeps log of daily activities. May deliver urgent messages to players on course.
GOE: 12.01.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

379.667-014 LIFEGUARD (amuse. & rec.)

Monitors activities in swimming areas to prevent accidents and provide assistance to swimmers: Cautions swimmers regarding unsafe areas. Rescues swimmers in danger of drowning and administers first aid. Maintains order in swimming areas. Inspects facilities for cleanliness. May clean and refill swimming pool. May determine chlorine content and pH value of water, using water testing kit. May conduct or officiate at swimming meets. May give swimming instructions.
GOE: 04.02.03 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

379.673-010 DOG CATCHER (government ser.) alternate titles: dog warden

Captures and impounds unlicensed, stray, and uncontrolled animals: Snares animal with net, rope, or device. Cages or secures animal in truck. Drives truck to shelter. Removes animal from truck to shelter cage or other enclosure. Supplies food, water, and personal care to detained animals. Investigates complaints of animal bite cases. Destroys rabid animals as directed. Examines dog licenses for validity and issues warnings or summonses to delinquent owners. May destroy unclaimed animals, using gun, or by gas or electrocution. May examine captured animals for injuries and deliver injured animals to VETERINARIAN (medical ser.) for medical treatment. May maintain file of number of animals impounded and disposition of each. May enforce regulations concerning treatment of domestic animals and be designated Humane Officer (government ser.).
GOE: 03.04.05 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 77

379.687-010 FIRE-EXTINGUISHER-SPRINKLER INSPECTOR (any industry) alternate titles: fire-apparatus sprinkler inspector

Inspects and tests sprinkler valves. Inspects pipes, hoses, and hose houses of fire apparatus in plants, offices, apartment buildings, and similar structures. Fills out inspection report on condition of valves, pipes, tanks, pumps, and alarms for superiors and customers.
GOE: 05.07.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

379.687-014 MOSQUITO SPRAYER (government ser.) alternate titles: hand-spray operator; sanitarian; sprayer, insecticide

Sprays marshland, drainage ditches, or catch-basins with insecticide, using portable compressed-air spray tank, to control breeding of mosquitoes. Removes blockage from area being sprayed, using pick and shovel, to facilitate drainage. May drive truck equipped with gasoline-powered fogger to spray insecticide over designated areas. May place poison bait in storm sewers and ditches to exterminate rodents.
GOE: 03.04.05 STRENGTH: M GED: R1 M1 L1 SVP: 3 DLU: 77

38 BUILDING AND RELATED SERVICE OCCUPATIONS

This division includes occupations concerned with the cleaning and upkeep of building interiors and the conveying of passengers and freight by elevator.

381 PORTERS AND CLEANERS

This group includes occupations concerned with cleaning buildings, furniture, and equipment. Includes sweeping, dusting, mopping, polishing floors and walls, and disposing of trash.

381.137-010 SUPERVISOR, JANITORIAL SERVICES (any industry) alternate titles: janitor, head; lead janitor; porter, head; supervisor, building maintenance

Supervises and coordinates activities of workers engaged in cleaning and maintaining premises of commercial, industrial, or other establishments, such as schools, stores, or auditorium: Assigns tasks to workers, and inspects completed work for conformance to standards. Issues supplies and equipment. Resolves workers' problems or refers matters to supervisor. Trains new workers, records hours worked, recommends discharge of incompetent workers, and performs other personnel duties as required. May submit requests for repair of cleaning equipment to SUPERINTENDENT, BUILDING (any industry) 187.167-190. May hire new employees. May requisition or purchase cleaning supplies and equipment. May perform duties of workers supervised. May supervise employees of public school system and be designated Supervisor, Maintenance And Custodians (education).
GOE: 05.12.18 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 87

381.137-014 SUPERVISOR, CENTRAL SUPPLY (medical ser.)

Supervises and coordinates activities of personnel in medical central supply room engaged in furnishing sterile and nonsterile supplies and equipment for use in care and treatment of patients: Directs activities of workers engaged in cleaning, assembling, and packing of linens, gowns, dressings, gloves, treatment trays, instruments, and related items; preparation of solutions; arrangement of

stock; and requisitioning, issuing, controlling, and charging of supplies and equipment. Instructs personnel in use of sterilizing equipment and water distillation apparatus, setting up standardized treatment trays, and maintaining equipment of central supply room. Establishes standards of work performance and methods of operation for department. Inspects work activities to ensure workers are following prescribed procedures to meet hospital standards. Ensures that aseptic techniques are employed by personnel in preparing and handling sterile items. Inspects daily inventory, maintains records of supply usage, and compiles periodic reports.
GOE: 05.12.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 86

381.687-010 CENTRAL-SUPPLY WORKER (medical ser.) alternate titles: central-service technician

Performs any combination of following duties: Scrubs and washes surgical instruments, containers, and equipment, such as aspirators and suction units. Sterilizes instruments, equipment, surgical linens, and supplies, such as surgical packs and treatment trays, using autoclave, sterilizer, or antiseptic solutions. Prepares packs of supplies, instruments, and dressing and treatment trays, according to designated lists or codes, and wraps, labels, and seals packs. Stores prepared articles and supplies in designated areas. Fills requisitions, writes charges, and inventories supplies. May be assigned to hospital areas, such as surgery and delivery rooms.
GOE: 05.12.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 88

381.687-014 CLEANER, COMMERCIAL OR INSTITUTIONAL (any industry) alternate titles: clean-up worker; housekeeper; janitor; laborer, building maintenance; mopper; porter; scrubber; sweeper

Keeps premises of office building, apartment house, or other commercial or institutional building in clean and orderly condition: Cleans and polishes lighting fixtures, marble surfaces, and trim, and performs duties described in CLEANER (any industry) I Master Title. May cut and trim grass, and shovel snow, using power equipment or handtools. May deliver messages. May transport small equipment or tools between departments. May setup tables and chairs in auditorium or hall. May be designated according to duties performed as Hall Cleaner (hotel & rest.); Light-Fixture Cleaner (any industry); Marble Cleaner (any industry); Metal Polisher (any industry); Paint Cleaner (any industry); or according to equipment used as Scrubbing-Machine Operator (any industry).
GOE: 05.12.18 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 88

381.687-018 CLEANER, INDUSTRIAL (any industry) alternate titles: clean-up worker; janitor; sanitor; scrubber; sweeper; trash collector; vacuum cleaner; waste collector

Keeps working areas in production departments of industrial establishment in clean and orderly condition, performing any combination of following duties: Transports raw materials and semifinished products or supplies between departments or buildings to supply machine tenders or operators with materials for processing, using handtruck. Arranges boxes, material, and handtrucks or other industrial equipment in neat and orderly manner. Cleans lint, dust, oil, and grease from machines, overhead pipes, and conveyors, using brushes, airhoses, or steam cleaner. Cleans screens and filters. Scrubs processing tanks and vats. Cleans floors, using water hose, and applies floor drier. Picks up reusable scrap for salvage and stores in containers. Performs other duties as described under CLEANER (any industry) I Master Title. May burn waste and clean incinerator. May pick up refuse from plant grounds and maintain area by cutting grass or shoveling snow. May operate industrial truck to transport materials within plant. May start pumps to force cleaning solution through production machinery, piping, or vats. May start pumps to lubricate machines. May be designated according to area cleaned as Alley Cleaner (textile); Can-Filling-Room Sweeper (beverage); Casting-And-Locker-Room Servicer (plastic-synth.); Ceiling Cleaner (any industry); Engine-Room Cleaner (any industry); Floor Cleaner (any industry); Overhead Cleaner (any industry).
GOE: 05.12.18 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 88

381.687-022 CLEANER, LABORATORY EQUIPMENT (any industry) alternate titles: equipment washer; laboratory aide; laboratory assistant; laboratory helper; laborer, laboratory; tester helper

Cleans laboratory equipment, such as glassware, metal instruments, sinks, tables, and test panels, using solvents, brushes, and rags: Mixes water and detergents or acids in container to prepare cleaning solution according to specifications. Washes, rinses, and dries glassware and instruments, using water, acetone bath, and cloth or hot-air drier. Scrubs walls, floors, shelves, tables, and sinks, using cleaning solution and brush. May sterilize glassware and instruments, using autoclave. May fill tubes and bottles with specified solutions and apply identification labels. May label and file microscope slides. May arrange specimens and samples on trays to be placed in incubators and refrigerators. May deliver supplies and laboratory specimens to designated work areas, using handtruck. May tend still that supplies laboratory with distilled water. May be designated Glass Washer, Laboratory (any industry) when cleaning glassware. May maintain inventory reports and logs.
GOE: 05.12.18 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 88

381.687-026 CLEANER, WALL (any industry) alternate titles: wallpaper cleaner; wall washer

Cleans interior walls and ceilings of offices, apartments, and other buildings, by hand or by use of wall-washing machine: Cleans walls and ceilings by hand, using sponge and soapy water or chemical solution, or presses lever in nozzle of machine to control flow of solution and moves nozzle fitted with porous pad over surfaces, exerting sufficient pressure to remove dirt and grease. May estimate cost of cleaning walls and submit bids.
GOE: 05.12.18 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

381.687-030 PATCH WORKER (agriculture)

Sweeps floors of cotton-bale compressing plant. Gathers loose cotton from floor. Carries or transfers light equipment to various workers, using handtruck.
GOE: 06.04.40 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

381.687-034 WAXER, FLOOR (any industry)

Cleans, waxes, and polishes floors by hand or machine: Removes dirt and blemishes from floor, using various cleaning solvents and compounds, according to composition of floor. Applies paste or liquid wax to floor with rags or machine. Polishes floor with electric polishing machine or weighted brush.
GOE: 05.12.18 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

382 JANITORS

This group includes occupations concerned with cleaning buildings and keeping them in good repair, performing minor painting, plumbing, and carpentry tasks; and firing and tending furnaces and boilers.

382.137-010 SUPERVISOR, MAINTENANCE (chemical) alternate titles: labor supervisor

Supervises and coordinates activities of workers engaged in maintenance of chemical plant. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.12.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

382.664-010 JANITOR (any industry) alternate titles: maintenance engineer; superintendent, building

Keeps hotel, office building, apartment house, or similar building in clean and orderly condition and tends furnace, air-conditioner, and boiler to provide heat, cool air, and hot water for tenants, performing any combination of following duties: Sweeps, mops, scrubs, and vacuums hallways, stairs and office space. Regulates flow of fuel into automatic furnace or shovels coal into hand-fired furnace. Empties tenants' trash and garbage containers. Maintains building, performing minor and routine painting, plumbing, electrical wiring, and other related maintenance activities, using handtools. Replaces air-conditioner filters. Cautions tenants regarding complaints about excessive noise, disorderly conduct, or misuse of property. Notifies management concerning need for major repairs or additions to lighting, heating, and ventilating equipment. Cleans snow and debris from sidewalk. Mows lawn, trims shrubbery, and cultivates flowers, using handtools and power tools. Posts signs to advertise vacancies and shows empty apartments to prospective tenants. May reside on property and be designated Manager, Resident (any industry).
GOE: 05.12.18 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 88

383 BUILDING PEST CONTROL SERVICE OCCUPATIONS

This group includes occupations concerned with pest control in buildings and surrounding areas.

383.361-010 FUMIGATOR (business ser.)

Releases poisonous gas and sets traps in buildings to kill dry-wood termites, beetles, vermin, and other pests, using cylinders of compressed gas and mechanical traps: Inspects infested building to identify pests causing damage and to determine treatment necessary. Examines porosity of walls and roof, based on knowledge of construction techniques, to determine method of sealing house. Measures inside dimensions of rooms with rule, and calculates volume of fumigant required and cost to owner. Tapes vents. Climbs ladder, pulls tarpaulins over building, and fastens edges of tarpaulins with clamps to make building airtight. Posts warning signs and padlocks doors. Turns valve on cylinder to discharge gas into building through hose. Holds halide lamp near seams of tarpaulins and building vents to detect leaking fumigant. Sprays or dusts chemicals in rooms or work areas and sets mechanical traps to destroy pests. May fumigate clothing and house furnishing in vaults at business establishment.
GOE: 05.10.09 STRENGTH: H GED: R4 M3 L3 SVP: 5 DLU: 77

383.364-010 EXTERMINATOR, TERMITE (business ser.) alternate titles: termite treater

Treats termite-infested and fungus-damaged wood in buildings: Studies report and diagram of infested area prepared by SALES AGENT, PEST CONTROL SERVICE (business ser.) to determine sequence of operations. Examines building to determine means of reaching infested areas. Cuts openings in building to gain access to infested areas, using handtools and power tools, such as electric drills, pneumatic hammers, saws, and chisels. Inserts nozzle into holes and opens compressed air valve of treating unit to force termicide into holes. Sprays pesticide under and around building, using pressure spray gun. Bores holes in concrete around buildings and injects termicide to impregnate ground. Keeps record of work performed. May direct EXTERMINATOR HELPER, TERMITE (business ser.). May replace damaged wood in sills, flooring, or walls, using carpenter's tools. May pour concrete or lay concrete blocks to raise height of foundation or isolate wood from contact with earth to prevent reinfestation.

GOE: 05.10.09 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

383.684-010 EXTERMINATOR HELPER (any industry) alternate titles: pest control worker helper

Assists EXTERMINATOR (any industry) 389.684-010 in destroying and controlling field rodents, noxious weeds, or other pests in or around buildings, performing any combination of following tasks: Sets traps and places poisonous bait in rodent infested areas. Fumigates burrows, using toxic gas, or kills rodents, using firearms. Secures tarpaulins over building to be fumigated, using ladder. Applies insecticides to buildings and grounds, using spray pumps and other equipment. Digs up, sprays with herbicides, or burns noxious weeds. Identifies and reports evidence of pest infestation. May drive service vehicles or equipment. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 05.10.09 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 86

383.687-010 EXTERMINATOR HELPER, TERMITE (business ser.) alternate titles: termite-treater helper

Assists EXTERMINATOR, TERMITE (business ser.) in treating termite-infested buildings: Digs around foundations to be chemically treated and digs ditches for forms, using pick and shovel. Carries lumber, building materials, and tools to work site. Crawls underneath buildings to remove debris prior to spraying. Cleans work site after completion of job. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 05.12.03 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

388 ELEVATOR OPERATORS

This group includes occupations concerned with conveying persons and freight between floors; giving information and directions to passengers; and frequently assisting passengers on and off cars.

388.367-010 ELEVATOR STARTER (any industry) alternate titles: elevator dispatcher; elevator supervisor; starter

Schedules, supervises, and coordinates activities of ELEVATOR OPERATORS (any industry) to provide efficient service to building patrons and employees: Provides elevator service according to demand by signaling operators or by establishing time schedules for each car. Enforces crowding and weight restrictions in cars. Answers questions regarding location of offices, individuals, or merchandise, and ushers passengers into waiting elevators. Gives instructions to new employees in elevator operation. Ensures that sufficient personnel are available to meet service demands, regulating shift assignments accordingly. Inspects equipment for safety and efficient operation. Reports need for maintenance to supervisor or elevator service company. May record employees' time on cards.

GOE: 09.05.09 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

388.663-010 ELEVATOR OPERATOR (any industry) alternate titles: service-car operator

Operates elevator to transport passengers between floors of office building, apartment house, department store, hotel, or similar establishment: Pushes buttons or moves lever to control movement of elevator on signal or instructions from passengers or others. Opens and closes safety gate and door of elevator at each floor where stop is made. Supplies information to passengers, such as location of offices, merchandise, and individuals. May perform other duties, such as distributing mail to various floors, answering telephone, preventing unauthorized persons from entering building, and assisting other employees to load and unload freight. May sweep or vacuum elevator. May be designated according to location of elevator operated as Front-Elevator Operator (hotel & rest.).

GOE: 09.05.09 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

389 BUILDING AND RELATED SERVICE OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with building and related service occupations.

389.134-010 SUPERVISOR, EXTERMINATION (business ser.)

Supervises and coordinates activities of EXTERMINATORS (any industry) engaged in destroying vermin with insecticides, rodenticides or fumigants: Inspects infested structure and recommends treatment, basing diagnosis on knowledge of pests' habits, fumigants, rodenticides and insecticides, and structural conditions. Directs EXTERMINATORS (any industry) in type of chemicals to use and locations to be treated. Advises building owners on preventive measures against reinfestation. May spray or apply insecticides, rodenticides or fumigants and perform duties as described under EXTERMINATOR (any industry).

GOE: 05.10.09 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

389.137-010 SUPERVISOR, HOME RESTORATION SERVICE (any industry)

Supervises and coordinates activities of workers engaged in cleaning and restoring interiors of homes damaged by fire, smoke, or water: Schedules work crews according to type and extent of interior damage to home. Inventories, requisitions, and issues supplies and equipment. Trains and supervises workers in methods of cleaning and restoring interiors of homes, including floors, walls, ceilings, carpet, upholstery, and draperies. Inspects completed work and work in progress for conformance to standards. Resolves workers' problems or refers matters to management. Explains methods of restoration and attempts to persuade prospective customers to contract for services.

GOE: 05.12.01 STRENGTH: M GED: R3 M3 L3 SVP: 7 DLU: 86

389.664-010 CLEANER, HOME RESTORATION SERVICE (any industry) alternate titles: cleaner, carpet and upholstery

Cleans and restores interiors of homes damaged by fire, smoke, or water, using commercial cleaning equipment: Receives work orders and schedules from supervisor. Drives van equipped with floor-mounted or portable commercial carpet, upholstery, and interior cleaning machines, tools, and supplies to work site. Cleans carpet, upholstery, floors, walls, ceilings, draperies, windows, and room accessories to remove effects of smoke and water damage such as dirt, soot, stains, mildew, and excess water and moisture, using commercial cleaning machines mounted in van with extension hoses or portable cleaning machines and variety of work aids, such as vacuum cleaners, chemical cleaning solutions, ladders, drop cloths, sponges, buckets, mops, and brushes. Places fans and dehumidifiers in strategic room locations to remove moisture from carpet, upholstery, and air. Verifies moisture presence and removal with moisture sensor. Sprays or fogs carpet, upholstery, and accessories with fabric conditioners and protectors, deodorizers, and disinfectants, using hand and power sprayers and electric foggers, applying knowledge of types of fabrics, dyes, and chemical sprays. Inspects completed restoration to ensure conformance to standards. Collects payments and discusses results of work with customers.

GOE: 05.12.18 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 86

389.667-010 SEXTON (nonprofit org.) alternate titles: janitor, church; verger

Takes care of church buildings and furnishings: Performs cleaning and routine maintenance duties in church and auxiliary buildings and in churchyard, or gives directions to other workers so engaged. Takes care of vestments and sacred vessels and prepares altar for religious services according to prescribed rite. Opens and locks church before and after services. Rings bells to announce services and other church events. Tends furnace and boiler to provide heat. May order cleaning supplies. May act as usher during services, maintain attendance count, and conduct visitors between services. May take part in conduct of services performing activities, such as lighting candles. May maintain church cemetery. May patrol church premises to provide security against vandalism and theft.

GOE: 05.12.18 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

389.683-010 SWEEPER-CLEANER, INDUSTRIAL (any industry) alternate titles: cleaner operator; power-cleaner operator; vacuum-cleaner operator

Drives industrial vacuum cleaner through designated areas, such as factory aisles and warehouses, to collect scrap, dirt, and other refuse. Empties trash collecting box or bag at end of each shift. May sift refuse to recover usable materials, such as screws, metal scrap, or machine parts. May clean machine, using rags and vacuum cleaner. May refuel machine and lubricate parts. May hand sweep areas inaccessible to machine and pick up scrap.

GOE: 05.12.18 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

389.684-010 EXTERMINATOR (business ser.) alternate titles: pest control worker; vermin exterminator

Sprays chemical solutions or toxic gases and sets mechanical traps to kill pests that infest buildings and surrounding areas: Fumigates rooms and buildings, using toxic gases. Sprays chemical solutions or dusts powders in rooms and work areas. Places poisonous paste or bait and mechanical traps where pests are present. May clean areas that harbor pests, using rakes, brooms, shovels, and mops, preparatory to fumigating. May be required to hold state license. May be designated according to type of pest eliminated as Rodent Exterminator (business ser.).

GOE: 05.10.09 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 81

389.687-010 AIR PURIFIER SERVICER (business ser.) alternate titles: air deodorizer servicer

Delivers, installs, and services air deodorizing and sanitizing devices in commercial, institutional, and public establishments: Drives delivery truck to convey deodorizing devices and chemical refills to building of customers. Attaches deodorizing devices (dispensers) to walls, using handtools, or places device unattached at various locations of customer's building. Places nontoxic chemical into deodorizing containers. May clean deodorizing device, using wire brush, or remove unit, if defective. May clean and disinfect equipment, such as urinals, toilet bowls, and washbasins, using brushes, sponges, and cleaning agents.

GOE: 05.12.12 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

389.687-014 CLEANER, WINDOW (any industry) alternate titles: window washer

Cleans windows, glass partitions, mirrors, and other glass surfaces of building interior or exterior, using pail of soapy water or other cleaner, sponge, and squeegee. Crawls through window from inside and hooks safety belt to brackets for support, sets and climbs ladder to reach second or third story, or uses bosun's chair, swing stage, or other scaffolding lowered from roof to reach outside windows, or stands to reach first floor or inside windows.

GOE: 05.12.18 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

389.687-018 LIGHT-FIXTURE SERVICER (any industry) alternate titles: fixture relamper; fluorescent lamp replacer; light-bulb replacer; light cleaner

Replaces electric light fixture parts, such as bulbs, fluorescent tubes, and starters. Repairs fixture parts, such as switches and sockets, using handtools.

Cleans fixtures and lamps, using soap, water and rags. Requisitions and keeps supply of bulbs, tubes, and replacement parts.

GOE: 05.12.18 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

4 AGRICULTURAL, FISHERY, FORESTRY, AND RELATED OCCUPATIONS

This category includes occupations concerned with propagating, growing, caring for, and gathering plant and animal life and products. Also included are occupations concerned with providing related support services; logging timber tracts; catching, hunting, and trapping animal life; and caring for parks, gardens, and grounds. Excluded are occupations requiring a primary knowledge or involvement with technologies, such as processing, packaging, and stock checking, regardless of their industry designation. Managerial occupations in agriculture, fishery, and forestry are included in Group 180.

40 PLANT FARMING OCCUPATIONS

This division includes occupations concerned with tilling soil; propagating, cultivating, and harvesting plant life; gathering products of plant life; and caring for parks, gardens, and grounds. Service occupations performed in support of these activities are also included.

401 GRAIN FARMING OCCUPATIONS

This group includes occupations concerned with growing and harvesting grain crops, such as corn, sorghum, wheat, barley, and rice; and field peas, field beans, and soybeans.

401.137-010 SUPERVISOR, AREA (agriculture)

Supervises and coordinates activities of workers engaged in detasseling corn on hybrid seed-corn farm: Examines ears of corn in field to determine time of emergence of silk and its retention of accompanying pollen from tassels, and schedules work load. Assigns block and field code numbers and identifies and marks male and female rows of stalks. Examines fields to find areas of rapidly growing tassels and orders crew to remove tassels before emergence of silk from ears of corn. Assigns fields to SUPERVISOR, DETASSELING CREW (agriculture). Determines frequency of detasseling according to factors, such as temperature, moisture, time of season, and variety of corn grown. Inspects fields for undetasseled corn plants, estimates number of plants in field, and computes percent of tassels pulled by making sample counts of plants. Registers corn detasseling crew and issues identification badges. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

401.137-014 SUPERVISOR, DETASSELING CREW (agriculture)

Supervises and coordinates activites of workers engaged in breaking and pulling tassels from corn plants: Directs crewmembers in methods of pulling tassels and stems from corn plants. Designates rows of corn to be detasseled so that ears of corn will be pollenized by tassels of adjacent rows of corn. Records detasseling time and acreage covered. May direct workers in method of pulling corn suckers. May recruit crewmembers and transport them to fields. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.04.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

401.161-010 FARMER, CASH GRAIN (agriculture) alternate titles: cash grain grower; grain farmer

Plants, cultivates, and harvests one or more grain crops, such as barley, corn, rice, soybeans, and wheat, for cash sale: Selects and buys type and amount of seed to be grown, taking into consideration local growing conditions and market demands. Operates equipment to plow, disk, harrow, and fertilize-ground and to plant grain. Plans harvesting, considering ripeness and maturity of grain and weather conditions and operates grain-harvesting equipment. Sells grain or stores grain for future sale. Directs activities of workers. Hires and discharges workers. May be designated according to specific grain grown as Corn Grower (agriculture); Rice Farmer (agriculture); Soybean Grower (agriculture); Wheat Grower (agriculture).
GOE: 03.01.01 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 81

401.683-010 FARMWORKER, GRAIN I (agriculture)

Drives and operates farm machinery to plant, cultivate, harvest, and store grain crops, such as wheat, oats, rye, and corn: Attaches farm implements, such as plow, disc, and drill, to tractor and drives tractor in fields to till soil and plant and cultivate grain, according to instructions. Tows harvesting equipment or drives and operates self-propelled combine to harvest crop. Performs variety of other duties, such as husking and shelling corn, lubricating and repairing farm machinery, and unloading grain onto conveyors to storage bins or elevators. May plan and schedule plowing, cultivating, and harvesting operations.
GOE: 03.04.01 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 80

401.683-014 FARMWORKER, RICE (agriculture)

Drives and operates rice-farm machinery to prepare land, till soil, build ditches and levees, and harvest rice crop: Hitches farm implements to tractor, and drives tractor along existing swaths and contours of rice field to plow and level fields and build or shore up ditches and levees of flood-irrigation system. Plants rice seed, or soaks rice seed in water and loads germinated seed onto airplane for aerial seeding of field. Loads fertilizer and weed killer into airplane, and stands at edge of field or positions markers indicating field pass by airplane to prevent overlap and gaps during aerial spraying. Drives tractor with harrow attachment over aerially seeded fields to cover seeds with dirt. Sets mowing controls and drives combine through fields to cut and thresh rice, stopping to adjust controls when amount of grain observed in chaff and amount of chaff observed in grain hoppers exceed allowable amounts. Transfers grain from combine hopper to grain truck, using transfer auger. Patrols irrigation ditches to detect obstructions and earthen deterioration, and removes debris and shores-up levees and ditches with shovel to ensure complete flooding of fields. Starts irrigation pumps, removes levee gates, and breaks apart levees to flood or drain field sections as directed. Performs miscellaneous duties, such as cleaning and lubricating farm equipment, loading and unloading trucks, and repairing buildings and fences.
GOE: 03.04.01 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

401.687-010 FARMWORKER, GRAIN II (agriculture)

Performs variety of manual tasks appropriate for grain crop being cultivated and harvested: Cultivates and thins crops, using hoe. Removes undesirable and excess growth, such as tassels, suckers, and weeds, by hand. Carries supplies, such as bags and baling wires, to workers in fields. Clears irrigation ditches, using shovel. Loads and unloads trucks. Repairs fences and buildings, using carpenter's handtools. Cleans and lubricates farm machines. May be identified with task being performed, such as hoeing, detasseling, and picking, or with crop being worked, such as hybrid seed-corn, field beans and peas, and wheat.
GOE: 03.04.01 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

402 VEGETABLE FARMING OCCUPATIONS

This group includes occupations concerned with growing and harvesting vegetable crops. Occupations concerned with growing and harvesting potatoes, sugar beets, and sugarcane are classified in Group 404. Occupations concerned with growing vegetables in a controlled environment, such as in greenhouses and sheds, are classified in Group 405.

402.131-010 SUPERVISOR, VEGETABLE FARMING (agriculture) alternate titles: field supervisor

Supervises and coordinates activities of workers engaged in planting, cultivating, and harvesting vegetable crops: Discusses seasonal crop-growing activities with management to determine sequence of operations and supplies, machinery, and work force needs. Assigns duties, such as tilling soil, planting, weeding, fertilizing, irrigating, harvesting, and maintaining machines, to subordinates, and specifies machines, tools, and supplies to be used. Observes workers to detect inefficient and unsafe work procedures, and demonstrates approved procedures. Performs other duties as described under SUPERVISOR (any industry) Master Title. May supervise workers engaged in mechanical repairs. May requisition machinery parts and record purchase data.
GOE: 03.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

402.161-010 FARMER, VEGETABLE (agriculture) alternate titles: garden farmer; vegetable grower

Raises vegetables: Determines kind and amount of crop to be grown, according to market conditions, weather, and size and location of farm. Selects and purchases seed, fertilizer, and farm machinery and arranges with buyers for sale of crop. Hires and directs farm workers engaged in planting, cultivating, and harvesting crop, such as beans, onions, and peas. Performs various duties of farm workers, depending on size and nature of farm, including setting up and operating farm machinery. May grow vegetables in greenhouse to produce out-of-season crops. May grow variety of vegetables and be designated Truck Farmer (agriculture). May specialize in growing single vegetable and be designated by name of vegetable as Onion Farmer (agriculture).
GOE: 03.01.01 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 81

402.663-010 FARMWORKER, VEGETABLE I (agriculture)

Drives and operates farm machinery to plant, cultivate, and harvest vegetables, such as peas, lettuce, tomatoes, and lima beans: Attaches farm implements, such as plow, planter, fertilizer applicator, and harvester, to tractor and drives tractor in fields to prepare soil and plant, fertilize, and harvest crops. Thins, hoes, and weeds row crops, using hand implements. Irrigates land to provide sufficient moisture for crop growth, using irrigation method appropriate to crop or locality. May mix spray solutions and spray crops. May supervise seasonal workers and keep time records of workers. May use horse-drawn equipment to plant, cultivate, and harvest crops. May adjust and maintain farm machinery. May be identified with crop raised.
GOE: 03.04.01 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

402.687-010 FARMWORKER, VEGETABLE II (agriculture) alternate titles: garden worker; laborer, vegetable farm; vegetable worker

Plants, cultivates, and harvests vegetables, working as crewmember: Dumps seed into hopper of planter towed by tractor. Rides on planter and brushes debris from seed spouts that discharge seeds into plowed furrow. Plants roots and bulbs, using hoe or trowel. Covers plants with sheet or caps of treated cloth or paper to protect plants from weather. Weeds and thins blocks of plants, using hoe or spoon-shaped tool. Transplants seedlings, using hand transplanter or by placing seedlings in rotating planting wheel while riding on power-drawn transplanter. Sets bean poles and strings them with wire or twine. Closes and ties leaves over heads of cauliflower and other cabbage and cabbagelike plants. Picks, cuts, pulls, or lifts crops to harvest them. Ties vegetables in bunches and removes tops from root crops. Pitches vine crops into viner (pea or bean shelling machine), using pitchfork or electric fork and boom, and cleans up spilled vines. May participate in irrigation activities. May be identified with work assigned, such as blocking, cutting, and stringing, or with crop raised, such as asparagus, beans, and celery.

GOE: 03.04.01 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 81

402.687-014 HARVEST WORKER, VEGETABLE (agriculture)

Harvests vegetables, such as cucumbers, onions, lettuce, and sweet corn, by hand or using knife, according to method appropriate for type of vegetable: Ascertains picking assignment from supervisor and places work aids, such as buckets and tie wires, in assigned area. Picks vegetable from plant, pulls vegetable from plant or soil, or cuts vegetable from stem or root. Puts vegetables in container or lays bunches of vegetables along row for collection. Carries containers or armloads of bunched vegetables to collection point. Loads vegetables on trucks or field conveyors. May tie vegetables into specified-size bunches, using wires or rubber bands. May cut top foliage from root vegetables, using knife. May wash vegetables. May be identified with tasks performed, such as picking, cutting, bunching, and washing; or with crop harvested as cucumbers, lettuce, onions, radishes, and sweet corn.

GOE: 03.04.01 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 81

403 FRUIT AND NUT FARMING OCCUPATIONS

This group includes occupations concerned with growing and harvesting fruit and nut crops. Occupations concerned with propagating and growing plants and tree stock for fruit and nut farms are classified in Group 405.

403.131-010 SUPERVISOR, TREE-FRUIT-AND-NUT FARMING (agriculture) alternate titles: supervisor, grove; supervisor, orchard

Supervises and coordinates activities of workers engaged in cultivating, pruning, spraying, thinning, propping, and harvesting tree crops, such as apples, lemons, oranges, peaches, and pecans: Assigns trees, rows, or blocks of trees to workers. Directs workers in spacing, thinning, irrigating, fertilizing, spraying, and pruning trees and in harvesting fruit. Issues ladders, pruning tools, and picking bags or buckets to workers. Inspects harvested fruit for bruises, maturity, and improper harvesting defects. Performs other duties as described under SUPERVISOR (any industry) Master Title. May dig up soil samples from various locations in grove to send to laboratory for analysis, using auger or shovel. May examine trees for blight and insect infestation and record degree of damage and location of affected trees. May requisition and purchase farm supplies, such as insecticides and machinery lubricants. May hire and discharge workers. May prepare daily tally sheets of worker hours and production.

GOE: 03.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 78

403.131-014 SUPERVISOR, VINE-FRUIT FARMING (agriculture)

Supervises and coordinates activities of workers engaged in planting, cultivating, and harvesting berry crops, such as cranberries and grapes: Confers with manager to evaluate weather and soil conditions and to develop plans and procedures. Hires workers and explains and demonstraes field work-techniques and safety-regulations to inexperienced workers. Assigns duties, such as tilling soil, planting, cultivating, and spraying vines, and gathering berries, to farmworkers and oversees work activities. Attaches farm implement, such as disc, planter, and fertilizer, and herbicide spreader, to tractor, and drives tractor in fields to plant and cultivate vines. Performs other duties as described under SUPERVISOR (any industry) Master Title. May adjust and repair farm machinery. May irrigate fields. May cut plant runners and uprights to thin vines and stimulate growth, using pruning tools. May be identified according to location as Cranberry-Farm Supervisor (agriculture); Vineyard Supervisor (agriculture).

GOE: 03.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

403.161-010 FARMER, TREE-FRUIT-AND-NUT CROPS (agriculture) alternate titles: orchardist

Plants and cultivates trees, such as apple, orange, and walnut, and harvests fruit and nut crops, applying knowledge of horticulture and market conditions: Determines varieties and quantities of trees to be grown, acreage to be tilled, and employees to be hired. Selects and purchases tree stock and farm machines, implements, and supplies. Decides when and how to plant, bud, graft, cultivate, irrigate, and prune trees and harvest crop, based on knowledge of tree-crop culture. Attaches farm implements, such as plow, disc, and harrow, to tractor and drives tractor in fields to till soil. Plants root stock, applies fertilizers, insecticides, and fungicides, and irrigates fields. Prunes growing trees to develop desired size and shape. Assigns duties to farmhands and explains orchard work techniques and safety regulations to inexperienced workers. Maintains employee and financial records. Arranges with buyers for sale of crops. Lubricates, adjusts, and makes minor repairs on farm machinery, implements, and equipment, using oilcan, grease gun, and handtools. May bud and graft stock. May plant ground crops to shade ground, conserve moisture, and improve soil. May be designated according to crop grown as Apple Grower (agriculture); Cherry Grower (agriculture); Filbert Grower (agriculture); Lemon Grower (agriculture); Nut Orchardist (agriculture); Orange Grower (agriculture). May be designated: Peach Grower (agriculture); Pecan Grower (agriculture); Tung-Nut Grower (agriculture); Walnut Grower (agriculture).

GOE: 03.01.01 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 77

403.161-014 FARMER, FRUIT CROPS, BUSH AND VINE (agriculture) alternate titles: berry grower

Plants and cultivates fruit bushes and vines and harvests crops, such as grapes, cranberries, and strawberries, applying knowledge of growth characteristics of specific varieties and soil, climate, and market conditions: Determines varieties and quantities of plants to be grown, acreage to be tilled, and employees to be hired. Selects and purchases plant stock and farm machines, implements, and supplies. Decides when and how to plant, bud, graft, prune, sucker, cultivate and irrigate plants, and harvest crop, based on knowledge of vine-crop culture. Attaches farm implements, such as harrow and ditcher, to tractor and drives tractor in fields to till soil. Drives and operates farm machinery to spray fertilizers, herbicides, and pesticides and haul fruit boxes. Hires, assigns duties to, and oversees activities of seasonal workers engaged in tilling and irrigating soil, pruning plants, and harvesting and marketing crop. Demonstrates and explains farm work techniques and safety regulations. Maintains employee and financial records. Makes arrangements with buyers for sale and shipment of crop. May make arrangements with AIRPLANE PILOT (agriculture) 196.263-010 to spray and dust fertilizers and pesticides on planted acreage. May install irrigation system(s) and irrigate fields. May set poles, string wires on poles to form trellises, and tie vines and canes to trellis wires. May prune vines and canes to size and shape growth. May lubricate, adjust, and make minor repairs on farm machinery, implements, and equipment, using oilcan, grease gun, and handtools, such as hammer and wrench. May be designated according to crop grown as Blueberry Grower (agriculture); Cranberry Grower (agriculture); Grape Grower (agriculture); Raspberry Grower (agriculture); Strawberry Grower (agriculture).

GOE: 03.01.01 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 81

403.683-010 FARMWORKER, FRUIT I (agriculture)

Drives and operates farm machinery to plant, cultivate, spray, and harvest fruit and nut crops, such as apples, oranges, strawberries, and pecans: Attaches farm implements, such as plow, planter, fertilizer applicator, and harvester to tractor and drives tractor in fields to prepare soil, and plant, fertilize, and harvest crops. Mixes chemical ingredients and sprays trees, vines, and grounds with solutions to control insects, fungus and weed growth, and diseases. Removes excess growth from trees and vines to improve fruit quality, using pruning saws and clippers. Irrigates soil, using portable-pipe or ditch system. Picks fruit during harvest. Drives truck or tractor to transport materials, supplies, workers, and products. Makes adjustments and minor repairs to farm machinery. May thin blossoms, runners, and immature fruit to obtain better-quality fruit. May select, cut, and graft stock-wood (scion) onto tree stem or trunk to propagate fruit and nut trees. May spray trees in spring to loosen and remove surplus fruit, and in fall to prevent early dropping and discoloration of fruit. May prop limbs to prevent them from breaking under weight of fruit. May start fans that circulate air or light smudge pots or torches to prevent frost damage. May be identified with work being performed, such as picking, plowing, and spraying; or according to crop worked such as cherries, cranberries, lemons, or walnuts.

GOE: 03.04.01 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 81

403.687-010 FARMWORKER, FRUIT II (agriculture)

Performs any combination of following tasks involved in planting, cultivating, and harvesting fruits and nuts, such as cranberries, apples, and pecans, according to instructions from supervisor or farmer: Tills soil, plants stock, prunes trees and bushes, and removes suckers and runners from vines and plants, using tools such as shovels, hoes, tampers, pruning hooks, and shears. Sprays plants with prescribed herbicides, fungicides, and pesticides to control diseases and insects. Removes blossoms and thins fruit to improve fruit quality. Harvests fruit [HARVEST WORKER, FRUIT (agriculture) 403.687-018]. May light smudge pots and torches or start wind machines that heat and circulate air about crop during cold weather to minimize frost damage. May lay out irrigation pipes, install sprinklers, and open and adjust water valves and gates to irrigate assigned fields. May repair wire fences and farm buildings, using handtools such as hammers and saws. May load and unload trucks. May guide harvester discharge spout over wooden bins to load fruit on trailer. May bag or box harvested fruit. May lay harvested fruit on trays in sun to sun-dry fruit. May clean, lubricate, and adjust farm machinery, such as weeders and harvesters, using tools such as wrenches and grease guns. May clear and burn roots and brush and gather ladders and containers to clean fields. May be identified with tasks being performed, such as thinning, smudging, and picking. May be designated according to crop grown as Farmworker, Berry (agriculture); Farmworker, Cranberry (agriculture); or according to work location as Laborer, Orchard (agriculture); Laborer, Vineyard (agriculture).

GOE: 03.04.01 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 81

403.687-014 FIG CAPRIFIER (agriculture)
Facilitates pollination of fig trees: Selects and picks mature figs which contain wasps or other small insects and places figs in hamper. Transfers figs from hampers to containers attached to infertile trees where wasps and other insects grow to maturity and expedite pollination.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

403.687-018 HARVEST WORKER, FRUIT (agriculture) alternate titles: fruit picker
Harvests fruits and nuts, such as cherries, strawberries, grapes, oranges, and pecans, according to method appropriate for type of fruit, by hand or using tools, such as shears, rubber mallet, pronged scoop, or hooked pole: Carries and positions work aids, such as ladders, canvas drop cloths, and buckets. Selects fruit to be harvested, according to size, shape, and color. Grasps, twists, and pulls fruit, snips stems, and shakes trees and vines to separate crop from plant and places fruit into bags, buckets, or trays, exercising care to avoid plant and fruit damage. Empties filled containers into collection boxes and bins. May stand on ladders or elevated platforms, stoop over plants, or crawl along rows to reach fruit. May measure fruit, using gauges. May pour fruit through screens when removing foreign matter, such as twigs and grasses. May position hand held vibrating device against branches of bushes to shake ripe fruit from branches. May dump fruit from containers onto conveyors or load containers onto trucks or wagons. May remove ladders, debris, boxes, and discarded fruit from fields and bogs to clean growing areas. May collect fallen nuts into piles, using rake. May carry and position irrigation pipes. May be identified with tasks being performed, such as rhubarb trimming, cranberry screening, and walnut knocking.
GOE: 03.04.01 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 81

403.687-022 VINE PRUNER (agriculture)
Prunes berry vines according to specific instructions: Walks along berry-plant row and observes plant foliage to ascertain vines requiring pruning. Cuts away excessive vine-growth, using pruning knife and shears.
GOE: 03.04.01 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

404 FIELD CROP FARMING OCCUPATIONS, N.E.C.

This group includes occupations concerned with growing and harvesting field crops, such as cotton, peanuts, potatoes, sugar beets, sugarcane, and tobacco; and miscellaneous crops, such as castor and mung beans, dill, ginseng, hops, and sesame. These crops usually require processing before being sold to the consumer and miscellaneous crops are those that cannot be classified as grain, vegetable, fruit, nut, horticultural, or field crops.

404.131-010 SUPERVISOR, FIELD-CROP FARMING (agriculture)
Supervises and coordinates activities of workers engaged in preparing fields and planting, cultivating, and harvesting crop specialties, such as cotton, mint, tobacco, and hops: Confers with manager to evaluate soil and weather conditions and to develop plans and procedures. Inspects fields and observes growing plants and harvested crop to determine work requirements, such as cultivating, spraying, thinning, weeding, irrigating, harvesting, and drying, according to time of year and condition of soil, plants, and crops. Determines number and kind of workers needed to perform required work and schedules activities. Inspects work performed, observes instrument and gauge readings, ascertains condition of crop, and performs related duties to verify worker adherence to instructions. Performs other duties as described under SUPERVISOR (any industry) Master Title. May hire workers. May train workers in work procedures, safety policies, and use of machinery and tools. May oversee packaging and transporting of harvested crop. May drive and operate farm machinery, such as tractor, baler, and self-propelled harvester. May examine machinery to ascertain maintenance, repair, and replacement requirements, and supervise workers engaged in machinery-maintenance activities. May issue tools to workers. May be designated Driver (agriculture) when supervising cotton workers. May be identified with crop grown.
GOE: 03.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

404.131-014 SUPERVISOR, SHED WORKERS (agriculture) alternate titles: shed boss
Supervises and coordinates activities of workers engaged in curing tobacco leaves on farm: Reads work schedule and ascertains number of available workers on day-haul bus. Assigns workers to tasks, such as stringing, handling, and hanging tobacco leaves for drying. Enforces company rules to promote safety and prevent waste. Investigates grievances and settles disputes to maintain harmony among workers. Keeps production records. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

404.161-010 FARMER, FIELD CROP (agriculture)
Plants, cultivates, and harvests specialty crops, such as alfalfa, cotton, hops, peanuts, mint, sugarcane, and tobacco, applying knowledge of growth characteristics of individual crop, and soil, climate, and market conditions: Determines number and kind of employees to be hired, acreage to be tilled, and varieties and quantities of plants to be grown. Selects and purchases plant stock and farm machinery, implements, and supplies. Decides when and how to plant, cultivate, and irrigate plants and harvest crops, applying knowledge of plant culture. Attaches farm implements, such as plow, disc, and seed drill to tractor and drives tractor in fields to till soil and plant and cultivate crops. Drives and operates farm machinery to spray fertilizers, herbicides, and pesticides and haul harvested crops. Hires, assigns duties to, and oversees activities of farm workers. Demonstrates and explains farm work techniques and safety regulations to new workers. Maintains employee and financial records. Arranges with buyers for sale and shipment of crop. May install irrigation system(s) and irrigate fields. May set poles and string wires and twine on poles to form trellises. May lubricate, adjust, and make minor repairs on farm machinery, implements, and equipment, using mechanic's handtools and work aids. May plant seeds in cold-frame bed and cover bed with cloth or glass to protect seedlings from weather. May transplant seedlings in rows, by hand or using transplanter machine. May grade and package crop for marketing. May be designated according to crop grown as Cotton Grower (agriculture); Ginseng Farmer (agriculture); Hay Farmer (agriculture); Hop Grower (agriculture); Peanut Farmer (agriculture); Sugarcane Planter (agriculture); Tobacco Grower (agriculture).
GOE: 03.01.01 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 77

404.663-010 FARMWORKER, FIELD CROP I (agriculture)
Performs following duties to prepare fields and plant, cultivate, and harvest field crops, such as cotton and hops: Attaches farm implements, such as disc harrow and weed cutter, to tractor, using bolts and mechanic's handtools. Drives tractor to field and tows attached implement back and forth across field or between crop rows, manipulating levers that activate and position implement parts to till soil. Loads and drives truck to transport farm supplies and tools, such as fertilizer and pesticide chemicals, trellis poles and wires, hoes and shovels, harvested crops, and farm workers to specified locations. Drives and operates self-propelled harvest machine to harvest crop. Adds oil, gasoline, and water to appropriate tanks on machinery. Makes minor mechanical adjustments and repairs on farm machinery, paints farm structures, and replaces fence and trellis wires when weather and season preclude driving activities. May irrigate fields. May oversee work crew engaged in planting, weeding, or harvesting activities. May weigh crop-filled containers and record weights. May spray fertilizer and pesticide solutions in assigned areas.
GOE: 03.04.01 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

404.685-010 SEED-POTATO ARRANGER (agriculture)
Tends machine that cuts potatoes into sections of uniform size for use as seed: Pushes button to start machinery that carries potatoes to, through, and from cutter blades. Arranges potatoes, according to size, on feed conveyor in line with knives. Discards diseased and rotting potatoes. Monitors potato flow and observes machinery operation to detect jams and malfunctions. Clears jams, and reports malfunctions to supervisor. Rakes up potatoes and potato sections that have fallen from conveyors.
GOE: 03.04.01 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

404.686-010 SEED CUTTER (agriculture) alternate titles: cutter; potato-seed cutter
Cuts seed potatoes into sections of uniform size for mechanical planting, using any of following methods: (1) Cuts potato into sections containing one or more eyes, using paring knife or draws potato along knife attached to table. (2) Dumps potatoes into hopper of machine that cuts potatoes in half. (3) Places potatoes on revolving arms of machine that cuts potatoes into quarters.
GOE: 03.04.01 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

404.687-010 FARMWORKER, FIELD CROP II (agriculture)
Plants, cultivates, and harvests field crops, such as cotton, hops, and tobacco, working as crewmember: Plants seeds or digs up and transplants seedlings and sets, using handtools such as hoes and scoops. Chops out weeds, thins plants to leave sturdier plants spaced at regular intervals, and hills up soil around plant roots to retain moisture and protect roots from temperature extremes, using hoe. Cuts vines from trellis, using knife, or pulls leaves from stalks to harvest crop. Stacks or packs crop in containers and loads containers on trucks or wagons. May propogate plants in covered cold-frame beds and pull up seedlings to be transplanted. May set up poles, string wires and twine among poles to form trellises, and secure plants and cloth netting to trellis structure to support growing plants and provide shade. May cut or pull away tops, leaves, and suckers from plants during growing season. May spray fungicides and pesticides on plants to destroy diseases and insects, using hand or engine-powered pump sprayer. May stack empty harvest containers in field area. May sharpen hoes, using portable grinding wheel and hand file. May be identified with task performed, such as pole setting, raking, suckering, and picking, or according to crop as Cotton Farmworker (agriculture); Hops Farmworker (agriculture); Tobacco Farmworker (agriculture).
GOE: 03.04.01 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 81

404.687-014 HARVEST WORKER, FIELD CROP (agriculture)
Harvests field crops, such as broomcorn, cotton, hops, peanuts, sugarcane, and tobacco, working as crewmember: Walks, stoops, crawls, or sits between plant rows to reach harvestable crop. Pulls, twists, or cuts fibers, leaves, stalks, straw, or vines, selected according to color, size, and shape, from bolls, roots, stalks, or trellises; by hand or using knife, machete, or sickle. Collects crop into containers, such as bags, boxes, and bundles, or piles and stacks crop in windrows. Picks up and carries bundles, bales, containers, or stacks of harvested crop to collection point, and loads crop onto truck or wagon, by hand or using hoist or hooks. May tie leaves, stalks, straws, or vines into bundles, using twine, clamps, or rubber bands. May shake dirt from vines and stack vines or

straw around stakes or stalks, by hand or using pitchfork, to protect crop from weathering on damp soil. May gather up and load scattered leaves, vines, or pods on truck. May burn debris, leaves, and stalks. May be identified with duties performed, such as cutting, picking, carrying, and loading; or with crop worked, such as alfalfa, mint, and sugar beets.
GOE: 03.04.01 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 80

405 HORTICULTURAL SPECIALTY OCCUPATIONS

This group includes occupations concerned with propagating and raising products, such as nursery stock, flowers, flowering plants, flower seeds, bulbs, and turf grasses. Also included are occupations concerned with growing food crops, such as mushrooms and rhubarb, which require controlled environmental conditions. Occupations concerned with propagating, raising, and transplanting forest trees are classified in Group 451.

405.131-010 SUPERVISOR, HORTICULTURAL-SPECIALTY FARMING (agriculture) alternate titles: green house manager; harvesting manager

Supervises and coordinates activities of workers engaged in propagating, cultivating, and harvesting horticultural specialties, such as trees, shrubs, flowering plants, flowers, and mushrooms, applying knowledge of environmental-control structures, systems, and techniques, and plant culture: Discusses plant growing activities with management personnel to plan planting and picking schedules and employee assignments; obtain authorization for changes in fertilizer, herbicide, and pesticide application techniques and formulas; resolve problems; and develop procedures for new species in product line and new cultivation techniques. Observes plants and flowers in greenhouses, pots, cold frames, and fields to ascertain condition, such as leaf texture and bloom size; and oversees changes in humidity and temperature levels and cultivation procedures to ensure conformance with quality control standards. Prepares and assigns work schedules. Trains new employees in gardening techniques, such as transplanting and weeding, and grading and packaging activities. Inspects facilities for signs of disrepair, such as missing glass panes and clogged sprinklers, and delegates repair duties to ensure refurbishing or replacement of parts in environmental-control structures and systems. May drive and operate heavy machinery, such as dump truck, four-wheeled tractor, and growth-media tiller, to handle materials and supplies. May perform variety of duties involving propagation, care, and marketing of plants and crops. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be identified according to kind of establishment as Greenhouse Superintendent (agriculture); or crop as Mushroom-Growing Supervisor (agriculture); Orchid Superintendent (agriculture).
GOE: 03.02.03 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 80

405.137-010 SUPERVISOR, ROSE-GRADING (agriculture) alternate titles: head rose grader

Supervises and coordinates activities of workers engaged in grading flowers according to size and appearance characteristics, and packaging customer orders in greenhouse: Reads inventory records, customer orders, and shipping schedules to ascertain day's activity requirements. Assigns duties to subordinates and informs workers of departures from established routines. Collects, reviews, and compares daily work-tallies, and looks at and feels flower bunches and rejected flowers, to ascertain quantity and quality of subordinates' work. Prepares and submits written and oral reports of personnel actions, such as performance evaluations, hires, promotions, and discipline. Explains and demonstrates grading techniques and packing procedures to train new workers. Grades and packs flowers, according to specifications, to maintain workflow during emergencies and periods of increased work load. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.04.04 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

405.161-010 BONSAI CULTURIST (agriculture) alternate titles: dwarf tree grower

Grows dwarf (Bonsai) trees: Selects seedlings or other small trees suitable for Bonsai. Stunts plant growth, using root and branch pruning techniques and soil and fertilizer mixtures. Trains limbs and branches to achieve artistic shape, using cutters and wires. Arranges plantings in containers, selected according to style, size, and shape complimentary to arrangement, and adds decorative materials, such as rocks, moss, and mirrors.
GOE: 03.01.03 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

405.161-014 HORTICULTURAL-SPECIALTY GROWER, FIELD (agriculture)

Propagates and grows horticultural-specialty products and crops, such as seeds, bulbs, rootstocks, sod, ornamental plants, and cut flowers: Plans acreage utilization and work schedules, according to knowledge of crop culture, climate and market conditions, seed, bulb, or rootstock availability, and employable work force and machinery. Attaches farm implements, such as disc and fertilizer spreader, to tractor and drives tractor in fields to till soil and plant and cultivate crop. Inspects fields periodically to ascertain nutrient deficiencies, detect insect, disease, and pest infestations, and identify foreign-plant growth, and selects, purchases, and schedules materials, such as fertilizers and herbicides, to ensure quality control. Hires field workers; assigns their duties according to scheduled activities, such as planting, irrigating, weeding, and harvesting; and oversees their activities. Maintains personnel and production records. Arranges with customers for sale of crop. May oversee activities, such as product cleaning, grading, and packaging. May provide customer services, such as planning and building planters, walls, and patios, and planting and caring for landscape and display arrangements. May bud or graft scion stock on plantings to alter growth characteristics. May develop new variations of species specialty to produce crops with specialized market-appeal, such as disease resistance or color brilliance. May cultivate out-of-season seedlings and crops, using greenhouse. May cultivate cover crop, such as hay or rye, in rotation with horticultural specialty to rejuvenate soil. May drive and operate self-propelled harvesting machine. May lubricate, adjust, and make minor repairs on farm machinery and equipment. May build, remove, and repair farm structures, such as fences and sheds. May be designated according to crop as Bulb Grower (agriculture); Flower Grower (agriculture); Grass Farmer (agriculture); Rose Grower (agriculture); Seed Grower (agriculture); Shrub Grower (agriculture).
GOE: 03.01.03 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

405.161-018 HORTICULTURAL-SPECIALTY GROWER, INSIDE (agriculture)

Grows horticultural-specialty products and crops, such as flowers, ornamental plants, and vegetables, under environmentally controlled conditions, applying knowledge of plant culture, environmental-control systems and structures, and market conditions: Determines types and quantities of plantings to grow; allocates space in structure, such as greenhouse or shed; and schedules growing activities. Plants seeds and transplants seedlings in material, such as bark, gravel, heated water, sandy soil, and stable straw to propagate seeds and nursery stock. Removes substandard plants to maintain quality control, prunes plants to enhance development, and positions plants to artistically display products. Monitors timing and metering devices that control frequency, amount, and type of nutrient applications; regulate humidity, ventilation, and carbon dioxide conditions; and dispense herbicides, fungicides, and pesticides. Explains and demonstrates care-taking techniques to subordinates. May assign their duties. May hire workers. May maintain personnel and production records. May deal with vendors to purchase supplies and materials, and arrange with customers to sell products and crops. May be identified with crop as Bean-Sprout Grower (agriculture); Mushroom Grower (agriculture); Orchid Grower (agriculture); or technique as Hydroponics Grower (agriculture).
GOE: 03.01.03 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

405.361-010 PLANT PROPAGATOR (agriculture)

Propagates plants, such as orchids and rhododendrons, applying knowledge of environmental controls and plant culture: Confers with management personnel to ascertain type and number of species to propagate and to develop and revise nutrient formulas and environmental-control specifications. Selects materials according to kind of plant; mixes growth media; and prepares containers, such as jars, pots, and trays. Initiates new plant growth, using methods such as following: (1) Cuts leaves, stems, or rhizomes from parent plant and places cuttings in growth media. (2) Bends, covers, or buries branches of parent plant in soil, securing branches with pegs or rocks. (3) Wounds stems of parent plant, using sharp knife, inserts pebble into wound, and binds wound with moss, burlap, or raffia. (4) Plants meristem and seeds in growth media. (5) Breaks off or cuts apart and plants roots, crowns, and tubers from parent plant. Inspects growing area to ascertain temperature and humidity conditions, and regulates systems of heaters, fans, and sprayers to ensure conformance with specifications. Gives transplanting and cultivation instructions to coworkers, and monitors activities to assure adherence to established plant-culture procedures. May graft or divide developing plants to promote altered growth characteristics. May log activities, maintain propagation records, and compile periodic reports.
GOE: 03.04.04 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 77

405.683-010 FARMWORKER, BULBS (agriculture)

Performs any combination of following tasks involved with driving, operating, and maintaining farm machinery and equipment, planting, cultivating, and harvesting flower bulbs and flowers, and maintaining structures on nursery acreage or in greenhouse: Hitches farm implements, such as plow and disc, to tractor, and drives tractor while operating implements to till soil and plant, fertilize, cultivate, dust, and spray crops, such as tulip, hyacinth, and begonia. Adjusts conveyor speeds and height of digging mechanism, using wrench, and drives and operates harvesting machine to dig up bulbs, applying knowledge of terrain contours and type of bulb being harvested. Participates in indoor activities, such as setting flowers in chilled-water troughs, packing flowers in cartons, stacking cartons on pallets, handtrucking containers of flowers and bulbs to designated areas in warehouse or greenhouse, and repairing boxes. Loads truck with containers of bulbs or flowers, and drives truck to deliver products. Repairs and paints farm structures, using ladder, brushes, and carpentry handtools. Washes, paints, lubricates, and participates in repair of farm machinery, using mechanic's handtools.
GOE: 03.04.04 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

405.683-014 GROWTH-MEDIA MIXER, MUSHROOM (agriculture)

Drives and operates machinery, such as crane loader, dump truck, and manure-turning machine, to move and treat straw and manure and dirt for use in mushroom beds: Operates crane loader to scoop wet manure from wet pit and dry manure from dry stack and dumps dry and wet manure into dump truck bed. Drives dump truck to haul manure to shed-covered area and dumps manure into rows. Drives dump truck loaded with dirt to rows of manure and moves levers to dump dirt over manure. Operates manure-turning machine to turn and mix manure with dirt and specified additives. Drives scoop loader to push manure from place to place on mushroom farm and to load manure onto trucks.

GOE: 03.04.04 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

405.684-010 BUDDER (agriculture)

Buds field-grown rose plants with hybrid buds during rose-growing season: Crouches over rows of rose plants to reach plant rootstock. Cuts T-shaped incision on rootstock and opens incision, using budding knife. Slices hybrid bud from scion wood and inserts bud into incision. Observes tying of buds to ensure quality of tie. Repeats procedure, rapidly, throughout work period to maintain production.

GOE: 03.04.04 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

405.684-014 HORTICULTURAL WORKER I (agriculture)

Plants, cultivates, and harvests horticultural specialties, such as flowers and shrubs, and performs related duties in environmentally controlled structure, applying knowledge of environmental systems: Ascertains growing schedules and deviations from established procedures from grower or manager. Sows seed and plants cuttings. Looks at and feels leaf texture, bloom development, and soil condition to determine nutrient and moisture requirements and to detect and identify germ and pest infestations. Sets fertilizer timing and metering devices that control frequency and amount of nutrients to be introduced into irrigation system. Applies herbicides, fungicides, and pesticides to destroy undesirable growth and pests, using spray wand connected to solution tank. Reads and interprets sensing indicators and regulates humidity, ventilation, and carbon dioxide systems to control environmental conditions. Grafts scions to seedling stock. Pollinates, prunes, transplants, and pinches plants, and culls flowers, branches, fruit, and plants to ensure development of marketable products. Harvests, packs, and stores crop, using techniques appropriate for individual horticultural specialty. May maintain and repair hydroponic and environmental control systems. May mix planting soil, following prescribed procedures. May record information, such as chemicals used, grafting performed, and environmental conditions, to maintain required records. May maintain and repair structures, using materials, such as corrugated fiberglass panels, lath, glass panes, and putty, and tools, such as hammer, saw, and putty knife. May be designated according to work location as Greenhouse Worker (agriculture); according to techniques employed as Hydrophonics Worker (agriculture); or according to horticultural specialty as Orchid Worker (agriculture).

GOE: 03.04.04 STRENGTH: H GED: R3 M2 L3 SVP: 3 DLU: 81

405.687-010 FLOWER PICKER (agriculture)

Harvests flowers, such as daffodils and tulips, working as member of crew: Pinches or cuts flower stem to remove flower from plant. Bundles specified number of stems, using rubberband, and carries bundles to collection box.

GOE: 03.04.04 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

405.687-014 HORTICULTURAL WORKER II (agriculture)

Performs any combination of following duties concerned with preparing soil and growth media, cultivating, and otherwise participating in horticultural activities under close supervision on acreage, in nursery, or in environmentally controlled structure, such as greenhouse and shed: Hauls and spreads topsoil, fertilizer, peat moss, and other materials to condition land. Digs, rakes, and screens soil, and fills cold frames and hot beds to prepare them for planting. Fills growing tanks with water. Plants, sprays, weeds, and waters plants, shrubs, and trees. Sows grass seed and plants plugs of sod and cuts, rolls, and stacks sod. Prepares scion and ties buds to assist worker budding roses. Traps and poisons pests, such as moles, gophers, and mice. Plants shrubs and plants in containers. Ties, bunches, wraps, and packs flowers, plants, shrubs, and trees to fill orders. Moves containerized shrubs and trees, using wheelbarrow. Digs up shrubs and trees, and wraps their roots with burlap. May dip rose cuttings into vat to disinfect cuttings prior to storage. May fold and staple corrugated forms to make boxes used for packing horticultural products. May be designated according to employing establishment as Grass-Farm Laborer (agriculture); Greenhouse Laborer (agriculture); Nursery Laborer (agriculture); Rose-Farm Laborer (agriculture); or according to horticultural specialty as Bean-Sprout Laborer (agriculture); Mushroom Laborer (agriculture).

GOE: 03.04.04 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 81

405.687-018 TRANSPLANTER, ORCHID (agriculture)

Transplants orchids in greenhouse, according to specific instructions: Slides meristem from jars of nutrient solution, or lifts plants from trays or pots. Trims and cleans plant roots, using knife, tweezers, water, and fungicide. Spreads pebbles and inert growth-media in planting containers, positions plant on media, adds and presses media around roots, and sprinkles surface with water and fertilizer solution. Records species code and planting date on plastic marker, and inserts marker in container. Places planted orchids on designated greenhouse shelves. Washes jars and lids in sanitizing solution, and carries them to laboratory.

GOE: 03.04.04 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

406 GARDENING AND GROUNDSKEEPING OCCUPATIONS

This group includes occupations concerned with caring for areas, such as gardens, grounds, parks, and cemeteries. Landscaping occupations are classified in Group 408.

406.134-010 SUPERVISOR, CEMETERY WORKERS (real estate)

Supervises and coordinates activities of workers engaged in preparing graves, maintaining cemetery grounds, and performing related work in cemetery: Confers with manager to develop plans and schedules for routine maintenance of grounds and graves and to ascertain number, nature, and time schedule for priority activities, such as grave digging and lining, grave-marker placement, and disinterments. Determines crew and equipment requirements for each maintenance and priority activity and assigns specific tasks to subordinates. Periodically observes ongoing work to ascertain if work is being performed according to instructions and will be completed on schedule. Reassigns tasks of subordinates and confers with manager to adjust activity schedules. Demonstrates and explains tasks, such as pruning shrubs and finishing cement, and use of equipment, such as backhoe, power lawnmower, and casket lowering device, to train new workers and improve performance of other workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May supervise workers engaged in opening and closing mausoleum vaults. May supervise and oversee graveside services to ensure services are performed according to instructions. May perform minor repairs on equipment, using handtools and power tools and applying mechanical knowledge. May supervise and coordinate activities of workers engaged in installation of water and sewer lines, building and sealing of roads within cemetery, excavation of ground for preset vaults, and movement of equipment by trailer.

GOE: 03.02.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 86

406.134-014 SUPERVISOR, LANDSCAPE (museums; waterworks)

Supervises and coordinates activities of workers engaged in maintenance of areas, such as parks, botanical gardens, and playgrounds: Plans landscaping tasks, and instructs workers in taking care of nursery, planting of flowers, and transplanting and pruning of trees and shrubbery. Directs workers in maintenance and repair of driveways, walks, hedges, swings, benches, and other park equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May patrol parks to guard against vandalism and destruction. May supervise workers engaged in maintenance of areas along highways, around rest areas, and federal or state facilities and be designated Supervisor, Grounds (government ser.); Supervisor, Rest Area (government ser.); or Supervisor, Park Workers (government ser.).

GOE: 03.02.03 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 81

406.137-010 GREENSKEEPER I (any industry) alternate titles: greenskeeper, head

Supervises and coordinates activities of workers engaged in preserving grounds and turf of golf course in playing condition: Confers with SUPERINTENDENT, GREENS (amuse. & rec.) 406.137-014 to plan and review work projects. Determines work priority and assigns workers to specific tasks, such as fertilizing, irrigating, seeding, mowing, raking, and spraying. Mixes and prepares recommended spray and dust solutions. Performs other duties as desribed under SUPERVISOR (any industry) Master Title. May direct and assist workers engaged in maintenance and repair of mechanical equipment. May assist workers to perform more critical duties.

GOE: 03.04.04 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

406.137-014 SUPERINTENDENT, GREENS (amuse. & rec.)

Supervises and coordinates activities of workers engaged in constructing new areas and preserving golf course grounds: Plans work programs, utilizing experience and established agronomic practices, to improve and maintain turf and playing condition of course. Plans new areas or changes in course and directs workers engaged in cultivation, grading, seeding, and sodding of area. Reviews test results of soil and turf samples and directs application of fertilizer, lime, insecticide, and fungicide. Tours grounds to ascertain work progress and condition of course. Inspects turf to designate height and frequency of mowing, and determine need for supplemental irrigation to sustain or force growth. Reviews and keeps employee time records. Interviews, hires, and discharges workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May assign workers to short-course training sessions related to course maintenance.

GOE: 03.01.03 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

406.381-010 GARDENER, SPECIAL EFFECTS AND INSTRUCTION MODELS (motion picture; museums)

Plants trees, shrubs, grass, flowers, and similar plant life in special display areas, such as motion picture sets and horticultural workshop beds, and as instruction models, such as terrariums and dish gardens, according to written, oral, and illustrated instructions and using gardening tools: Reads and studies instructions and discusses project with supervisor to ascertain material and tool requirements. Collects horticultural items and gathers materials, such as containers, charcoal, moss, and rock. Plants items, following plan and applying knowledge of appropriate gardening techniques. May weed, water, and fertilize displays, sets, and instruction models. May collect horticultural items, such as twigs, leaves and flowers for use as instruction materials. May be designated Greens Planter (motion picture) when working on motion picture sets.

GOE: 03.01.03 STRENGTH: M GED: R4 M3 L3 SVP: 5 DLU: 77

406.683-010 GREENSKEEPER II (any industry) alternate titles: laborer, golf course

Performs any combination of following duties, as directed by GREENSKEEPER (any industry) I, to maintain grounds and turf of golf course in playing condition: Operates tractor, using specific attachments, to till, cultivate, and grade new turf areas, to apply prescribed amounts of lime, fertilizer, insecticide, and fungicide, and to mow rough and fairway areas at designated cut, exercising care not to injure turf or shrubs. Cuts turf on green and tee

areas, using hand mower and power mower. Connects hose and sprinkler systems at designated points on course to irrigate turf. Digs and rakes ground to prepare new greens, grades and cleans traps, and repairs roadbeds, using shovels, rakes, spades, and other tools. May plant, trim, and spray trees and shrubs.
GOE: 03.04.04 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

406.684-010 CEMETERY WORKER (real estate) alternate titles: gravedigger
Prepares graves and maintains cemetery grounds: Locates grave site according to section, lot, and plot numbers, and marks area to be excavated. Removes sod from gravesite, using shovel. Digs grave to specified depth, using pick and shovel or backhoe. Places concrete slabs on bottom and around grave to line it. Mixes and pours concrete to construct foundation for grave marker, using premixed concrete, wheelbarrow, and handtools. Positions casket-lowering device on grave, covers dirt pile and sod with artificial grass carpet, erects canopy, and arranges folding chairs to prepare site for burial service. Builds wooden forms for concrete slabs, using hammer, saw, and nails. Sets grave marker in concrete on gravesite, using shovel and trowel. Mows grass, using hand or power mower. Prunes shrubs, trims trees, and plants flowers and shrubs on grave, using handtools. Removes leaves and other debris from graves, using leaf blowers and weed eaters. May drive vehicles, such as backhoe, trucks, and tractors. May repair and maintain tools and equipment, using handtools and power tools and applying mechanical knowledge. May open and close mausoleum vaults, using handtools.
GOE: 03.04.04 STRENGTH: H GED: R3 M1 L2 SVP: 5 DLU: 86

406.684-014 GROUNDSKEEPER, INDUSTRIAL-COMMERCIAL (any industry) alternate titles: caretaker, grounds; gardener
Maintains grounds of industrial, commercial, or public property, performing any combination of following tasks: Cuts lawns, using hand mower or power mower. Trims and edges around walks, flower beds, and walls, using clippers, weed cutters, and edging tools. Prunes shrubs and trees to shape and improve growth or remove damaged leaves, branches, or twigs, using shears, pruners, or chain saw. Sprays lawn, shrubs, and trees with fertilizer, herbicides, and insecticides, using hand or automatic sprayer. Rakes and bags or burns leaves, using rake. Cleans grounds and removes litter, using spiked stick or broom. Shovels snow from walks and driveways. Spreads salt on public passage ways to prevent ice buildup. Plants grass, flowers, trees, and shrubs, using gardening tools. Waters lawn and shrubs, using hose or by activating fixed or portable sprinkler system. May repair fences, gates, walls, and walks, using carpentry and masonry tools. May paint fences and outbuildings. May clean out drainage ditches and culverts, using shovel and rake. May perform ground maintenance duties, using tractor equipped with attachments, such as mowers, lime or fertilizer spreaders, lawn roller, and snow removal equipment. May sharpen tools, such as weed cutters, edging tools, and shears, using file or knife sharpener. May make minor repairs on equipment, such as lawn mower, spreader, and snow removal equipment, using handtools and power tools. May perform variety of laboring duties, common to type of employing establishment.
GOE: 03.04.04 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 86

406.684-018 GARDEN WORKER (agriculture; museums) alternate titles: gardener-florist
Cultivates and cares for ornamental plants and installs floral displays in indoor or outdoor settings through performance of any combination of following duties as directed by supervisory personnel: Conditions and prepares soils and plants seeds, seedlings, or bulbs in greenhouse or outdoor growing area, using spades, trowels, sprayers, sprinklers, cultivators, and other gardening handtools and equipment. Fertilizes, waters, weeds, transplants, or thins plants in growing areas. Mixes and applies pesticides to maintain health of plants and prepare plants for installation in greenhouse or outdoor display areas. Lays sod or artificial grass and builds framework for indoor floral displays, or prepares outdoor display beds according to work plan. Transplants plants from growing area to display beds, or places potted plants in beds according to work plans. Attends display beds to maintain health of plants and beauty of display. Maintains and repairs gardening handtools and equipment and structures, such as greenhouses and hot beds, using maintenance and carpentry tools. May mow lawns, prune trees, and perform other duties to maintain grounds.
GOE: 03.04.04 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 86

406.687-010 LANDSCAPE SPECIALIST (government ser.) alternate titles: park worker
Maintains grounds and areas along highway right-of-way of city, state, and national parks: Sows grass seed, using spreader, or plants trees, shrubs, or flowers, according to instructions and planned design of landscaped area, using handtools. Applies herbicide or mulch to designated areas, using sprayers. Grubs and weeds around bushes, trees, and flower beds. Trims hedges and prunes trees, using handtools. Mows lawns, using hand mower or power-driven lawnmower. Picks up and burns or carts away paper and rubbish. Repairs and paints benches, tables and guardrails, and assists in repair of roads, walks, buildings, and mechanical equipment, using handtools. May live on-site and be designated Campground Caretaker (government ser.). May be referred to as Groundskeeper, Parks and Grounds (government ser.).
GOE: 03.04.04 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 81

407 DIVERSIFIED CROP FARMING OCCUPATIONS

This group includes occupations concerned with growing and harvesting two or more kinds of crops, usually on the same farm.

407.131-010 SUPERVISOR, DIVERSIFIED CROPS (agriculture)
Supervises and coordinates activities of workers engaged in plantin
tivating, and harvesting more than one kind of crop, such as vegetabl
grain, crop specialty, and fruit: Confers with management to evaluate
and soil conditions and to develop and revise plans and procedures.
workers in preparing soil and in planting, cultivating, spraying, and har
crops, such as wheat, onions, sweet corn, and mint. Performs other du
described under SUPERVISOR (any industry) Master Title. May su
workers engaged in maintenance and repair of farm machines and fa
such as mowers, root diggers, fences, and sheds. May adjust, lubricate
and repair farm machines and facilities. May drive and operate farm mac
such as trucks, tractors, and self-propelled harvesters. May compile and
reports on farm conditions, such as machinery breakdowns, crop diseas
labor problems. May hire and discharge workers.
GOE: 03.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 78

407.161-010 FARMER, DIVERSIFIED CROPS (agriculture)
Grows and harvests more than one kind of crop, such as fruit, grain,
ble, and specialty crop, applying market condition and agricultural kno
applicable to kinds of crops raised: Determines kinds and quantities o
to grow according to market conditions, weather, and farm size and l
Selects and purchases supplies, such as seeds, fertilizers, and farm mac
and arranges with buyers for sale of crops. Hires and directs activities
workers engaged in tilling soil and planting, cultivating, and harvesting
Performs various duties of farm workers, depending on farm size or sea
cluding setting up and operating farm machinery, such as truck, tract
harrow, and self-propelled harvester.
GOE: 03.01.01 STRENGTH: M GED: R4 M4 L4 SVP: 7 DLU: 77

407.663-010 FARMWORKER, DIVERSIFIED CROPS I (agricultu
Drives and operates farm machines to grow and harvest combination
of crops, such as grain, fruit, and vegetable: Attaches farm implement
as plow, seed drill, and manure spreader to tractor, and drives tractor an
ates implements in fields to till soil and plant, cultivate, and fertilize
such as sugar beets, asparagus, wheat, onions, and mint. Thins and
plants, such as field corn, lima beans, fresh peas, and dry beans
handtools, such as hoes and shovels or power-drawn implement. Irrigate
to provide moisture for crop growth, according to irrigation method app
for crops or locality. May mix chemical solutions, such as pesticides
cides, and fertilizers, and spray crops. May oversee activities of seasona
ers, and keep workers' time records. May adjust and maintain farm mach
GOE: 03.04.01 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

407.687-010 FARMWORKER, DIVERSIFIED CROPS II (agricult
Performs any combination of following manual duties involved in p
cultivating, and harvesting crops on diversified-crop farm, such as whea
and sugar-beet farm and tomato and sweet-potato farm: Rides on plan
brushes debris from furrow-plowing spouts. Plants roots and bulbs, us
or trowel. Transplants seedlings, using hand transplanter. Covers plants
tect them from weather, using sheets or caps of treated cloth or paper.
and thins plants, using hoe or spoon-shaped tool. Sets out poles and
wires or twine to build trellises or fences. Positions and ties leaves or
of plants, such as watermelons and cabbages, to promote market-quality
opment. Prunes limbs, runners, or buds from trees or vines to shape pla
promote productivity, using shears and saws. Harvests crops using app
method, such as picking, pulling, and cutting. Cuts off tops of root pla
sacks or bunches and ties harvested crops to facilitate handling. Picks
bris, such as vines and culls, to clean harvested crops, and cleans
around harvesting machines. May be identified with work performed,
planting, weeding, and picking.
GOE: 03.04.01 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

408 PLANT LIFE AND RELATED SERVICE OCCUPATIONS

This group includes occupations typically found in establishments pr
blight, weed, and pest control; and landscaping, tree, and related serv
a fee or contract basis. Farm equipment operators are classified in Gro
Crop-preparation-service-for-market occupations, such as sorting, gradi
packing fruit and vegetables; and nut hulling and shelling are classified
sion 92.

408.131-010 SUPERVISOR, SPRAY, LAWN AND TREE SERVI
riculture) alternate titles: crew manager
Supervises and coordinates activities of workers engaged in pruning t
shrubs, cultivating lawns, and applying pesticides and other chemicals
ing to service contract specifications: Reviews contracts to ascertain
machine, and work force requirements and schedules work for crews a
to weather conditions, availability of equipment, and seasonal limitations
tigates customer complaints and spot checks completed work to ascerta
ity of subordinates' work and effectiveness of chemicals applied. Sugg
mula and procedure changes and orders corrective work to improve q
service and ensure contract compliance. Answers inquiries from potent
tomers regarding methods, materials, and price ranges in person or
phone. Prepares service estimates according to labor hour, material,
chine requirement costs determined from job site appraisal data, experie

records. Compiles reports of personnel matters, such as absenteeism and labor costs, for management. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to kind of crew supervised as Spray Supervisor (agriculture); Tree-Service Supervisor (agriculture).
GOE: 03.02.03 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

408.137-010 SUPERVISOR, INSECT AND DISEASE INSPECTION (agriculture) alternate titles: disease-and-insect-control boss
Supervises and coordinates activities of workers engaged in detecting presence of noxious insects and plant diseases in field crops and counting insect population, applying knowledge of standard sampling techniques: Ascertains kinds of crops planted in each field and number of acreages involved to determine need for modifying sampling techniques and to determine number of workers needed. Assigns fields to workers, distributes sampling worksheets, and briefs new workers on identifying characteristics of prevalent insects and diseases. Compiles sampling-results data from worksheets to prepare composite insect and disease report for each field. Transports workers to and from fields using truck. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.04 STRENGTH: L GED: R4 M4 L4 SVP: 6 DLU: 77

408.137-014 SUPERVISOR, TREE-TRIMMING (utilities)
Supervises and coordinates the activities of workers engaged in removing trees that interfere with electric power lines: Examines work order to determine location of trees to be pruned or felled by trimming crews. Reads street and road maps and drives truck to transport crew to work site. Inspects electric power lines near trees to be trimmed and secures clearance to work on lines if necessary. Directs placement of rigging for hoisting tools to workers in trees and for lowering severed tree limbs to ground. Supervises workers in cutting away branches of trees so that remaining tree limbs are at safe distance from electric power lines. Orders removal of trees when necessary. Explains tree trimming activities to consumers when working on consumers' property. Keeps daily work records. Occasionally trims trees. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.04.05 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

408.161-010 LANDSCAPE GARDENER (agriculture) alternate titles: landscaper
Plans and executes small scale landscaping operations and maintains grounds and landscape of private and business residences: Participates with LABORER, LANDSCAPE (agriculture) in preparing and grading terrain, applying fertilizers, seeding and sodding lawns, and transplanting shrubs and plants, using manual and power-operated equipment. Plans lawns, and plants and cultivates them, using gardening implements and power-operated equipment. Plants new and repairs established lawns, using seed mixtures and fertilizers recommended for particular soil type and lawn location. Locates and plants shrubs, trees, and flowers selected by property owner or those recommended for particular landscape effect. Mows and trims lawns, using hand mower or power mower. Trims shrubs and cultivates gardens. Cleans grounds, using rakes, brooms, and hose. Sprays trees and shrubs, and applies supplemental liquid and dry nutrients to lawn and trees. May dig trenches and install drain tiles. May make repairs to concrete and asphalt walks and driveways.
GOE: 03.01.03 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 77

408.181-010 TREE SURGEON (agriculture)
Prunes and treats ornamental and shade trees and shrubs in yards and parks to improve their appearance, health, and value: Cuts out dead and undesirable limbs and trims trees to enhance beauty and growth. Scrapes decayed matter from cavities in trees, and fills holes with cement to promote healing and prevent further deterioration. Sprays and dusts pesticides on shrubs and trees to control pests and disease or sprays foliar fertilizers to increase plant growth, using hand or machine dusters and sprayers. Tops trees to control growth characteristics and to prevent interference with utility wires. May apply herbicides to kill brush and weeds. May fell and remove trees and bushes. May plant trees and shrubs.
GOE: 03.01.03 STRENGTH: M GED: R4 M2 L2 SVP: 6 DLU: 77

408.364-010 PLANT-CARE WORKER (agriculture) alternate titles: interior horticulturist; plant tender
Cares for ornamental plants on various customer premises, applying knowledge of horticultural requirements, and using items such as insecticides, fertilizers, and gardening tools: Reads work orders and supply requisitions to determine job requirements, and confers with supervisor to clarify work procedures. Loads plants and supplies onto truck in order of scheduled stops, using handtruck. Drives truck to premises and carries needed supplies to work area. Examines plants and soil to determine moisture level, using water sensor gauge, and waters plants according to requirements of species, using hose and watering can. Sponges plant leaves to apply moisture and remove dust. Observes plants under magnifying glass to detect insects and disease, and consults plant care books or confers with supervisor to identify problems and determine treatments. Selects and applies specified chemical solutions to feed plants, kill insects, and treat diseases, using hose or mist-sprayer. Transplants root-bound plants into larger containers. Pinches and prunes stems and leaves to remove dead and diseased leaves, to shape plants, and to induce growth, using shears. Removes diseased and dying plants from premises and replaces them with healthy plants. Informs customer of plant care needs. Enters record of actions taken at each stop in route book and prepares requisitions for materials needed on subsequent visit. Returns diseased, dying, and unused plants and supplies to employer premises.
GOE: 03.04.05 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 86

408.381-010 SCOUT (agriculture) alternate titles: pest-control worker
Locates and exterminates plant and tree pests and diseases: Searches fields, brush, trees, and warehouses to locate plant pests, such as witchweed, boll weevil, Japanese beetle, soybean cyst nematode, fire ant, gypsy moth, white-fringed beetles, and army worms. Mixes exterminating agents, such as herbicides, insecticides, and fungicides, according to type of infection or infestation to be treated. Applies exterminating agents, using spray equipment. Destroys clusters of gypsy-moth eggs by painting or spraying clusters with creosote. Collects samples of infected soil or plants for laboratory analysis. Marks infested area to determine effectiveness of treatment. May specialize in treatment of one type of infestation, such as gypsy moth or witchweed.
GOE: 03.04.05 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

408.381-014 WEED INSPECTOR (agriculture)
Locates and destroys noxious weeds in rural municipality: Inspects roadsides and ditches for noxious weeds and notifies landowners in areas where suspected weeds are located. Identifies weeds and prepares poisonous solution required to destroy them. Sprays infected area with solution.
GOE: 03.04.05 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

408.662-010 HYDRO-SPRAYER OPERATOR (agriculture)
Operates truck-mounted *hydro-sprayer* to cover areas, such as highway median strip, hillsides and fields with mixture of grass seed, fertilizer and mulch according to specifications: Pumps water and dumps seed, fertilizer, and wood fiber into hydro-sprayer tank according to formula. Connects hoses and nozzles, selected according to terrain and distribution pattern requirements, using pressure couplings and threaded fittings. Starts motors and engages machinery, such as hydro-sprayer agitator and pump. Lifts, pushes, and swings nozzle, hose, and tube to direct spray over designated area. Covers area to specified depth, applying knowledge of weather conditions, such as humidity and wind velocity; machinery capacities, such as droplet size and elevation-to-distance ratio, and obstructions, such as trees and buildings. Gives driving instructions to truck driver, using hand and horn signals, to ensure complete coverage of designated area. Cleans and services machinery to ensure operating efficiency, using water, gasoline, lubricants, and handtools. Occasionally plants grass with seed spreader and operates straw blower to cover seeded area with asphalt and straw mixture.
GOE: 03.04.04 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

408.664-010 TREE TRIMMER (tel. & tel.; utilities) alternate titles: tree trimmer, line clearance; tree-trimming-line technician
Trims trees to clear right-of-way for communications lines and electric power lines to minimize storm and short-circuit hazards: Climbs trees to reach branches interfering with wires and transmission towers, using climbing equipment. Prunes treetops, using saws or pruning shears. Repairs trees damaged by storm or lightning by trimming jagged stumps and painting them to prevent bleeding of sap. Removes broken limbs from wires, using hooked extension pole. Fells trees interfering with power service, using chain saw (portable power saw). May work from bucket of extended truck boom to reach limbs.
GOE: 03.04.05 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

408.667-010 TREE-TRIMMER HELPER (utilities) alternate titles: tree trimmer helper, line clearance
Assists TREE TRIMMER (tel. & tel.; utilities) in clearing trees and branches that interfere with communication lines and electric power lines: Hoists tools and equipment to TREE TRIMMER (tel. & tel.; utilities) and lowers branches with rope or block and tackle. Positions and steadies ladders. Saws and chops up branches, and loads debris, tree trunk and limbs on truck, using winch. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 03.04.05 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

408.684-010 LAWN-SERVICE WORKER (agriculture)
Cultivates lawns, using power aerator and *thatcher* and chemicals according to specifications: Lifts dead leaves and grass from between growing grass and soil, using thatcher. Pierces soil to make holes for fertilizer and water, using aerator. Presses aerator fork into soil and pulls rake through grass to cultivate areas not accessible to machines. Distributes granulated fertilizers, pesticides, and fungicides on lawn, using spreader. Records services rendered, materials used, and charges assessed on specified form. Transports thatcher, aerator, tools, and materials to and from job site, using truck with hydraulic lift-gate. May care for athletic field turf and be designated Athletic Turf Worker (amuse. & rec.).
GOE: 03.04.04 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

408.684-014 SPRAYER, HAND (agriculture)
Sprays herbicides, pesticides, and fungicides on trees, shrubs, and lawns, using hoses and truck-mounted tank: Fills sprayer tank with water and chemicals according to formula, using hose or pump. Pulls spray hose from truck-mounted reel, turns knob, presses lever, and points nozzle selected according to job site characteristics, such as type of infestation, wind direction and velocity, plantings and terrain, to spray weeds, trees, shrubs, and lawns. Occasionally manipulates levers that control hydraulically powered, truck-mounted boom to position spray wands and release chemical solutions under pressure to spray ground areas. May use portable spray equipment. May grub out and burn infested bushes. May destroy diseased trees. May spray livestock with pesticides

GOE: 03.04.04 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

408.684-018 TREE PRUNER (agriculture)

Cuts away dead and excess branches from fruit, nut, and shade trees, using handsaws, pruning hooks and shears, and long-handled clippers. Applies tar or other protective substances to cut surfaces to seal surfaces against insects. May use truck-mounted hydraulic lifts and pruners and power pruners. May climb trees, using climbing hooks and belts, or climb ladders to gain access to work area. May specialize in pruning fruit trees and be designated Orchard Pruner (agriculture). May prune, cut down, fertilize, and spray trees as directed by TREE SURGEON (agriculture) and be designated Tree-Surgeon Helper (agriculture) I.

GOE: 03.04.05 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

408.687-010 FIELD INSPECTOR, DISEASE AND INSECT CONTROL (agriculture)

Inspects fields to detect presence of noxious insects and plant diseases, applying knowledge of identifying characteristics of insects and diseases: Walks through fields, following standard sampling patterns, and examines plants at periodic intervals to detect presence of insects or diseases. Counts numbers of insects on examined plants or number of diseased plants within sample area. Records results of counts onto field worksheet. Collects samples of unidentifiable insects or diseased plants for identification by supervisor.

GOE: 03.02.04 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

408.687-014 LABORER, LANDSCAPE (agriculture)

Moves soil, equipment, and materials, digs holes, and performs related duties to assist LANDSCAPE GARDENER (agriculture) 408.161-010 in landscaping grounds: Digs holes for plants and trees, using pick and shovel. Mixes fertilizer or lime with dirt in bottom of holes to enrich soil, places plants or trees in holes, and adds dirt to fill holes. Attaches wires from planted trees to stakes to support trees. Hauls or spreads topsoil, using wheelbarrow and rake. Waters lawns, trees, and plants, using portable sprinkler system, hose, or watering can. Spreads straw over seeded soil to prevent movement of seed and soil. Builds forms for concrete borders, using lumber, hammer, and nails. Mixes and pours cement for garden borders. Places decorative stones and plants flowers in garden areas. Mows lawns, using power mower.

GOE: 03.04.04 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 81

408.687-018 TREE-SURGEON HELPER II (agriculture)

Hands or hoists tools and equipment to TREE PRUNER (agriculture) or TREE SURGEON (agriculture). Lowers pruned limbs and trunk sections, using ropes; sections limbs, using saw; and reduces sections to chips, using chipper. Rakes up debris and loads it on truck. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 03.04.04 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

409 PLANT FARMING AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with plant farming and related activities.

409.117-010 HARVEST CONTRACTOR (agriculture) alternate titles: farm-labor contractor

Provides harvest crews for farmers and directs, coordinates, and oversees crew activities, such as field hauling and threshing: Contacts crop growers to ascertain time and method of harvesting. Inspects crops and fields to estimate acreage yield and determine loading requirements, land contours, road accessibility, and distances to storage or processing area. Prepares and submits bids to farmer to obtain harvest contract. Recruits, hires and orients crewmembers. Assigns workers to tasks involved in harvesting, loading, moving, and storing crops. Prepares and submits bids to farmers to provide work crews for farming activities, such as planting, pruning, and thinning fruit trees, setting posts, and weeding field crops. May supply, tend, adjust, and repair trucks and farm machines. May transport or arrange for transportation of workers. May be required to be licensed by state and federal authorities. May prepare production records and crew payroll. May be identified with crew activity as Contractor, Broomcorn Threshing (agriculture); Contractor, Field Hauling (agriculture).

GOE: 03.01.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

409.131-010 SUPERVISOR, PICKING CREW (agriculture) alternate titles: harvest supervisor

Supervises and coordinates activities of workers engaged in picking fruits, vegetables, and row crops, by hand or machine, and loading and stacking filled containers on trucks: Examines crop to determine degree of maturity. Directs workers in methods of picking crops and specifies size of fruit or vegetable to pick. Ensures that equipment, such as ladders and containers, are available to workers. Directs distribution of field boxes along rows for convenience of workers. Checks harvested products for size, quality, and variety, and informs workers of discrepancies. Oversees loading and stacking filled containers on trucks. Performs other duties as described under SUPERVISOR (any industry) Master Title. May pay employees. May be designated according to type of crops harvested as Apple-Picking Supervisor (agriculture); Cauliflower-Harvesting-And-Packing Supervisor (agriculture); Orange-Picking Supervisor (agriculture); Onion-Harvesting Supervisor (agriculture); Peach-Harvesting Supervisor (agriculture); Watermelon-Harvesting Supervisor (agriculture).

GOE: 03.04.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 80

409.137-010 IRRIGATOR, HEAD (agriculture) alternate titles: supervisor, irrigation

Supervises and coordinates activities of workers engaged in irrigating crops: Inspects area irrigated to ensure adequate soaking and prevent waste of water. Opens head gate to permit entry of water into main ditches or pipes. Signals worker to start water flow. Directs workers in cleaning and repairing ditches or pipes. Keeps workers' time records. Performs other duties as described under SUPERVISOR (any industry) Master Title. May verify addition of liquid fertilizer to irrigation ditches by commercial firm.

GOE: 03.04.05 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 78

409.137-014 ROW BOSS, HOEING (agriculture)

Supervises and coordinates activities of workers engaged in hoeing, weeding, and thinning crops, such as sugar beets, lettuce, and watermelons: Assigns rows and distributes hoes to workers. Observes thinning, weeding, or cultivating process, notes evidence of unsatisfactory work, and initiates corrective measures. Keeps time and production records. Collects tools at end of workday. Performs other duties as described under SUPERVISOR (any industry) Master Title. May recruit workers.

GOE: 03.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

409.667-010 AIRPLANE-PILOT HELPER (agriculture)

Performs any combination of following duties to provide ground support for AIRPLANE PILOT (agriculture) 196.263-010 engaged in aerial seeding and fertilizing of fields and dusting of crops: Mixes fertilizers and pesticides according to prescribed formulas, and loads seeds, fertilizers, or pesticides onto airplane. Pours or pumps materials and seeds into feed hopper of airplane. Signals pilot when propeller is clear of people and obstructions to take off and to dust or spray fields. Waves flag or stands on edge of field to mark flight passes for pilot to prevent skips and overlaps.

GOE: 03.04.05 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 78

409.683-010 FARM-MACHINE OPERATOR (agriculture)

Drives and operates one or more farm machines, such as tractors, trucks, and harvesters to perform specified farm activity as cutting hay, picking cranberries, and harvesting wheat: Hitches soil conditioning implement, such as plow or harrow to tractor, and operates tractor and towed implement to furrow and grade soil. Drives tractor and operates designated towed machine, such as seed drill or manure spreader, to plant, fertilize, dust, and spray crops. Prepares harvesting machine by adjusting speeds of cutters, blowers, and conveyors and height of cutting head or depth of digging blades according to type, height, weight, and condition of crop being harvested, and contour of terrain. Attaches towed- or mounted-type harvesting machine to tractor, using handtools, or drives self-propelled harvesting machine to cut, pull up, dig, thresh, clean, chop, bag, or bundle crops, such as sod, vine fruits, or livestock feed. Moves switches, pulls levers, and turns knobs and wheels to activate and regulate mechanisms. Refuels engine, lubricates machine parts, and monitors machine operations to ensure optimum performance. Drives truck to haul materials, supplies, or harvested crops to designated locations. May load and unload containers of materials and products on trucks, trailers, or railcars by hand or driving forklift truck. May mix specified materials and dump solutions, powders, or seeds into planter or sprayer machinery. May oversee activities of field crews. May drive horses or mules to tow farm machinery. May be identified with crop, such as hay, onions, and cranberries, or machine, such as baler, chopper, and digger.

GOE: 03.04.01 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 82

409.683-014 FIELD HAULER (agriculture)

Drives truck or tractor with trailer attached to gather and transport harvested crop in field: Hauls trailer alongside crew loading crop or adjacent to harvesting machine and regulates speed to keep abreast of crew. Hauls loaded trailers from field to highway or packing shed, uncouples trailer, couples empty trailer to tractor and returns to field. May haul crop over public roads to storage shed or processing plant.

GOE: 03.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

409.684-010 IRRIGATOR, VALVE PIPE (agriculture)

Floods or row-irrigates field sections, using portable pipe sections equipped with valves connected to underground waterline: Secures gate attachment (water flow regulator) to vertical pipe. Connects length of valve pipe to gate and attaches additional pipe through field section or across ends of rows until area is spanned. Starts motor that pumps water through pipeline system, and opens valves to direct water over uneven terrain and fill rows or areas enclosed by checks (earth embankments). Observes rate of flow and adjusts valves accordingly. Shovels dirt into holes and low spots in levees and removes obstructions. Digs opening in embankment at end of row to direct overflow of water into spillway. Builds levees to prevent water from overflowing other crops or highways. Lubricates pumping equipment and makes minor repairs.

GOE: 03.04.05 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

409.685-010 FARM-MACHINE TENDER (agriculture)

Tends machines, such as corn shelling machine, winnowing machine, and grass-removing machine that separate crops from waste materials, such as grass, twigs, and cobs: Turns switches to activate machinery, such as conveyors, blowers, and shakers. Adjusts machinery to obtain optimum separations. Loads conveyors, hoppers, and wheels to feed machines. Positions boxes or attaches bags at discharge end of conveyor to catch products. Moves baffle lever that

channels product flow to container or stops flow during container exchanges. Observes machine operation to detect malfunctions and adjusts machine, lubricates parts, and replaces pieces to improve performance. Stops machinery and pulls debris or overloads from conveyors to avoid clogging. May level and smooth materials on conveyor to regulate flow through machine. May weigh containers to ensure conformance with specifications. May close filled sacks, using needle and thread or tie-string, and stencil identifying information on sack. May mix and pour chemical solutions, such as preservatives and insecticides, in treating tanks. May transport materials and products to and from machine, using dump truck. May be identified with machine tended.
GOE: 03.04.01 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

409.685-014 IRRIGATOR, SPRINKLING SYSTEM (agriculture) alternate titles: irrigator, overhead

Tends sprinkler system that irrigates land: Lays out strings (pipe) along designated pipeline settings in field. Connects pipe, using snap lock or wrench to tighten collar clamp. Attaches revolving sprinkler heads to vertical pipes at designated points along pipeline. Starts gasoline engine and adjusts controls that move self-propelled wheel line sprinkler system across field or pushes on switch that activates circle sprinkler system, and starts pump that forces water through system to irrigate crops. Observes revolving sprinklers to ensure uniform distribution of water to all areas. Lubricates, adjusts, and repairs or replaces parts, such as sprinkler heads and drive chains to maintain system, using handtools. Disassembles system and moves it to next location after specified time intervals.
GOE: 03.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 81

409.686-010 FARMWORKER, MACHINE (agriculture)

Performs any combination of following duties to feed or off bear farm machines used to plant, harvest, and clean crops: Loads containers of rooted cuttings, plants, seedlings, or bulbs on planting machine and pulls levers to start planting and watering mechanisms. Walks beside or rides on machine while inserting plants in planter-mechanism clamp, pocket, or tube at specified intervals. Dumps, pitches, scoops, or shovels materials and products, such as bulbs, onions, and nuts into feed hopper. Guides plants onto feed conveyor. Picks up spilled products and places them on feed mechanism. Notifies designated coworker when machine malfunctions are observed. Stacks empty boxes in conveyor discharge rack or hangs bags on hooks under discharge chute, and flips baffle lever that channels discharge flow to catch products. Closes ends of filled sacks, using tie wires. Loads sacks or boxes onto truck or trailer, or guides discharge spout over truck, trailer, or silo. Cleans machinery, such as planting or digging mechanism and chain conveyor. Lubricates, adjusts, and replaces machinery parts, using handtools.
GOE: 03.04.01 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

409.687-010 INSPECTOR-GRADER, AGRICULTURAL ESTABLISHMENT (agriculture)

Inspects and grades agricultural products, such as carrots, rose bushes, strawberry plants, and tobacco, in field or shed, according to marketing specifications: Estimates weight of product visually and by feel. Verifies count. Looks at, feels, and smells product, as required by its nature, to determine grade and identify substandard products. Places rejected products and individual grades of products in designated piles, containers, or areas. May pay harvest hands. May oversee field hauling. May be designated according to kind of product as Carrot Grader-Inspector (agriculture); Rose Grader (agriculture); Tobacco Grader (agriculture); Watermelon Inspector (agriculture).
GOE: 03.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 80

409.687-014 IRRIGATOR, GRAVITY FLOW (agriculture)

Irrigates field and row crops, using any of following gravity-flow methods: (1) Lifts gate in side of flooded irrigation ditch, permitting water to flow into bordered section of field. Shovels and packs dirt in low spots of embankment or cuts trenches in high areas to direct water flow. Closes gate in ditch when bordered section is flooded. (2) Removes plugs from portholes in pipes or wooden tunnels set in embankment at end of rows and observes water flowing through portholes. Removes obstructions from rows and builds up edges of rows with dirt. Plugs porthole as each row is filled. (3) Opens gate or connects standpipe (vertical pipe) to underground pipe system that releases waterflow into reservoir or ditch. Siphons water from flooded reservoir or gate or connects standpipe (vertical pipe) to underground pipe system that releases waterflow into reservoir or ditch. Shovels or hoes soil to clear ditches and furrows and build embankments that channel water in assigned area but avoid overflow into areas that could be damaged by water. May mix and apply cement solution to fill holes and cracks in concrete-lined pipes, ditches, and spillways, and make minor repairs to metal, concrete, and wooden frameworks in pipe and ditch valves and gates. May carry, lay out, and join portable irrigation-pipe sections to link up main ditch or pipe with field.
GOE: 03.04.05 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

409.687-018 WEEDER-THINNER (agriculture)

Weeds or thins crops, such as tobacco, strawberries, sugar beets, and carrots, by hand or using hoe: Breaks up soil around each plant. Pulls or cuts out weeds and surplus seedlings. Grooves dirt along row to facilitate irrigation, and mounds dirt around plants to protect roots. May be designated Hoer (agriculture) when job emphasis is on use of hoe.
GOE: 03.04.01 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

41 ANIMAL FARMING OCCUPATIONS

This division includes occupations concerned with breeding, raising, maintaining, gathering, and caring for land animals, collecting their products, and providing services in support of these activities. Occupations concerned with breeding and caring for aquatic animals are included in Division 44.

410 DOMESTIC ANIMAL FARMING OCCUPATIONS

This group includes occupations concerned with breeding, raising, gathering, and caring for domestic animals and domesticated wild animals, such as cattle, sheep, dogs, buffalo, and reindeer, and collecting their products, such as milk, wool, and fur. Occupations concerned with raising domestic fowl are included in Group 411, game animals in Group 412, and lower animals in Group 413.

410.131-010 BARN BOSS (any industry) alternate titles: corral boss; hostler; lot boss; stable manager

Supervises and coordinates activities of workers engaged in maintenance of stables and care of horses: Establishes amount and type of rations to feed animals according to past food consumption, health, activity, and size of animals. Inspects animals for evidence of disease or injury and treats animal according to experience or following instructions of VETERINARIAN (medical ser.). Inspects stables and animals for cleanliness. Supervises STABLE ATTENDANT (any industry) in upkeep of stalls, feed and water troughs, and equipment, and in care and feeding of animals. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

410.131-014 SUPERVISOR, ARTIFICIAL BREEDING RANCH (agriculture)

Supervises and coordinates activities of workers engaged in caring for stud animals and collecting semen: Studies weight and activity records, nutritional requirements, and considers available feed, to determine feed rations. Considers animals' age, temperaments, fertility, and buyer demand to develop semen collection schedules. Observes animals for deviation in behavior and appearance to detect illness and injury. Treats, or assigns workers to treat, ill or injured animals, or obtains services of VETERINARIAN (medical ser.) for serious illnesses or injuries. Assigns workers tasks, such as feeding animals, cleaning quarters, and maintaining facilities and equipment. Supervises workers engaged in collecting and processing semen and collects semen, using artificial vagina. Analyzes semen samples, using spectroscope and microscope, to determine number of services possible, or supervises workers analyzing semen samples. Demonstrates artificial insemination techniques to farmers to promote use of product. Trains workers in care of studs and collecting and processing semen. Orders supplies, such as feed and bedding. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

410.131-018 SUPERVISOR, DAIRY FARM (agriculture)

Supervises and coordinates activities of workers engaged in milking, breeding, and caring for cows, and performs lay-veterinary duties on dairy farm: Assigns workers to tasks, such as feeding and milking cows, cleaning cattle, barns, and equipment, and assisting with breeding and health care. Inspects barns and milking parlor for cleanliness and maintenance and informs workers of actions required to ensure compliance with established standards. Studies feed and milk production records to determine feed formula required to produce maximum milk yield and notifies workers of diet changes. Studies genetic and health records to develop schedules for activities, such as breeding, dehorning, and sale of calves. Schedules breeding, vaccinating, and dehorning of cows and calves. Observes cows during estrus and artificially inseminates cows to produce desired offspring. Examines cows for evidence of illness, injuries, and calving, treats illnesses and injuries, delivers calves, and engages VETERINARIAN (medical ser.) to care for serious injuries and illnesses. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

410.131-022 SUPERVISOR, STOCK RANCH (agriculture)

Supervises and coordinates activities of workers engaged in breeding, feeding, herding, marking, and segregating livestock and in construction and repair of fences, pens, and buildings: Inspects stock, buildings, fences, fields, pasturage and feed supply, notes tasks to be done, and assigns them to crews or individual workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to type of stock raised.
GOE: 03.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

410.134-010 SUPERVISOR, LIVESTOCK-YARD (any industry)

Supervises and coordinates activities of workers engaged in care and movement of livestock in livestock yard: Assigns workers to feed, weigh, medically treat, and transfer livestock. Observes livestock handling and issues movement and health treatment instructions to direct livestock processing and transfer. Examines livestock to determine effectiveness of disease and injury control and instructs workers to take corrective action to rectify deficiencies. Observes condition of stockyard structures and equipment and arranges for needed maintenance and repairs. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 03.02.04 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

410.134-014 SUPERVISOR, WOOL-SHEARING (agriculture)
Supervises and coordinates activities of workers engaged in shearing sheep on contract basis: Contacts SHEEP RANCHER (agriculture) to arrange terms of contract. Recruits, hires, trains, and supervises crew who shear sheep and perform related duties. Provides, sets up, and tests shearing equipment. Arranges for transportation, living quarters or campsite, food, and other accommodations for crew. Maintains time, production, and other records. Pays crewmembers. Performs duties as described under SUPERVISOR (any industry) Master Title. May participate in shearing sheep.
GOE: 03.04.01 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 77

410.134-018 SUPERVISOR, KENNEL (nonprofit org.) alternate titles: animal shelter supervisor
Supervises and coordinates activities of animal shelter workers, and performs maintenance on buildings and equipment: Establishes and coordinates work schedule to expedite accomplishment of essential and emergency tasks, issues instructions to workers, examines work results, and provides training to improve performance. Examines ailing animals to determine need of services from VETERINARIAN (medical ser.) 073.101-010. Replaces faulty electrical and plumbing fixtures, builds shelves, and paints structures and equipment to maintain shelter facilities. Greases water pump and observes water pumping system and pressure gauge to verify water pressure and to detect signs of leakage. Tunes-up, replaces parts, and maintains ambulance, pickup truck, lawnmower, and edger, using handtools, spare parts, and maintenance manuals. Cleans and disinfects shelter area, using high pressure water hose and bleach, to prepare shelter to receive visitors. Operates shelter euthanasia equipment to destroy designated animals. Drives ambulance and pickup truck in response to emergency calls and to investigate complaints of animal neglect or cruelty. Assists workers in interring coffins of heavy animals. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.04 STRENGTH: H GED: R4 M2 L3 SVP: 4 DLU: 86

410.134-022 SUPERVISOR, RESEARCH DAIRY FARM (agriculture)
Supervises and coordinates activities of workers engaged in caring for bulls, cows, and young animal stock on research dairy farm: Demonstrates work methods of animal care, such as feeding, barn cleaning, milking, and tagging animals for identification to workers. Transports hay and grain from storage area to barn, using tractor or electric cart. Observes animals for signs of illness, injury, nervousness, or unnatural behavior. Notifies veterinarian when serious injury or illness occurs. Maintains records on medical care, breeding, and milk production. Observes living conditions of animal environment and informs workers of remedial actions to be taken. Informs maintenance crew of needed repairs on tractors and carts. May perform duties of caring for animals in absence of workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.01 STRENGTH: H GED: R3 M2 L3 SVP: 6 DLU: 86

410.137-010 CAMP TENDER (agriculture)
Supervises and coordinates activities of workers engaged in tending bands of sheep on range or pasture and keeps them supplied with food and other necessities: Designates area to be used by each SHEEP HERDER (agriculture). Transports food, drinking water, fuel, mail, animal feed, and other supplies to SHEEP HERDER (agriculture). Observes condition of range, water, and animals, and gives directions to SHEEP HERDER (agriculture) when to move to another range, reporting findings to owner of band or to LIVESTOCK RANCHER (agriculture). Assists in moving camp to another location by hauling supply wagon, using horse or truck. Performs duties as described under SUPERVISOR (any industry) Master Title. May substitute for SHEEP HERDER (agriculture) during emergencies, vacations, or for other reasons. May lamb ewes and drench sheep.
GOE: 03.01.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

410.137-014 TOP SCREW (agriculture) alternate titles: lead rider; ramrod; top waddy
Supervises and coordinates activities of a group of COWPUNCHERS (agriculture) (colloquially called screws or waddies) riding after cattle on open range. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.04.01 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 77

410.137-018 SUPERVISOR, ANIMAL MAINTENANCE (pharmaceut.)
Supervises and coordinates activities of workers engaged in raising and caring for animals used in development of pharmaceutical products in pharmaceutical research and manufacturing facility: Visits animal maintenance areas and observes and discusses animal care, such as feeding, treatment, and breeding, with workers to identify problems or recommend changes. Prepares reports that indicate activity of unit, such as purchases, absenteeism of workers, and animal treatment. Contacts approved vendors to order and schedule arrival of animals, animal food, and equipment. Trains and observes workers in job duties and safety precautions. Contacts designated personnel to recruit new personnel or for repair of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.03.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 86

410.161-010 ANIMAL BREEDER (agriculture)
Breeds and raises animals, such as cats, dogs, guinea pigs, mice, monkeys, rabbits, and rats: Selects and breeds animals, according to knowledge of animals, genealogy, traits, and offspring desired. Feeds and waters animals, and cleans pens, cages, yards, and hutches. Examines animals to detect symptoms of illness or injury. Treats minor injuries and ailments and engages VETERINARIAN (medical ser.) to treat animals with serious illnesses or injuries. Records weight, diet and other breeding data. Builds and maintains hutches, pens, and fenced yards. Adjusts controls to maintain specific temperature in building. Arranges for sale of animals to hospitals, research centers, pet shops, and food processing plants. May exhibit animals at shows. May be designated according to kind of animal bred and raised as Cat Breeder (agriculture); Dog Breeder (agriculture); Guinea-Pig Breeder (agriculture); Monkey Breeder (agriculture); Mouse Breeder (agriculture); Rabbit Breeder (agriculture); Rat Breeder (agriculture).
GOE: 03.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

410.161-014 FUR FARMER (agriculture)
Breeds and raises fur-bearing animals, such as mink, fox, or chinchilla: Buys or captures breeding stock. Breeds and raises animals in surroundings simulating their habitat. Feeds and waters animals and cleans their pens and yards. Kills animals in their prime and removes their pelts. Arranges with buyers for sale of pelts and breeding stock. Packs pelts in crates and ships to processing plants. Places live animals in crates and ships to buyers. May treat and preserve pelts at farm. May be designated according to type of animal raised as Chinchilla Farmer (agriculture); Fox Farmer (agriculture); Mink Farmer (agriculture).
GOE: 03.01.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

410.161-018 LIVESTOCK RANCHER (agriculture) alternate titles: livestock breeder; livestock farmer
Breeds and raises livestock, such as beef cattle, dairy cattle, goats, horses, reindeer, sheep, and swine, for such purposes as sale of meat, riding or working stock, breeding, or for show; and for products, such as milk, wool, and hair: Selects and breeds animals according to knowledge of animals, genealogy, characteristics, and offspring desired. Selects pasture, range, and crop lands to graze animals and produce feed crops. Mixes feed and feed supplements according to dietary requirements of animals and availability of grazing land. Feeds, waters, grazes, and distributes salt licks for animals. Observes animals to detect signs of illness and injury, treats minor injuries and ailments, disinfects and vaccinates animals, and engages VETERINARIAN (medical ser.) 073.101-010 to treat serious illnesses and injuries. Attends animals during and after birth of offspring. Castrates, docks, and dehorns animals. Brands, tatoos, notches ears, and attaches tags to identify animals. Milks cows and goats, shears sheep, and clips goats' hair. Operates farm machinery to plant, cultivate, and harvest feed crops. Cleans and fumigates barns, stalls, and pens, and sterilizes milking machines and equipment. Cools milk to prevent spoilage and packages wool and other products for shipment. Maintains and repairs farm machinery, equipment, buildings, pens, and fences. Arranges for sale of animals and products. Maintains cost and operation records. May butcher animals and cure meat. May hire and supervise workers. May exercise and train horses. May groom and exhibit animals at livestock shows. May be designated according to animal raised as Cattle Rancher (agriculture); Dairy Farmer (agriculture); Goat Farmer (agriculture); Horse Rancher (agriculture); Reindeer Rancher (agriculture); Sheep Rancher (agriculture); Swine Rancher (agriculture). May manage farm that raises and breeds thoroughbred horses and be designated Thoroughbred Horse Farm Manager (agriculture).
GOE: 03.01.01 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 81

410.161-022 HOG-CONFINEMENT-SYSTEM MANAGER (agriculture)
Breeds and raises swine in confinement buildings for purpose of selling pork to meatpacking establishments: Selects and breeds swine according to knowledge of animals, genealogy, characteristics, and offspring desired. Regulates breeding of sow herd to produce maximum number of litters. Attends sows during farrowing and helps baby pigs to survive birth and infancy. Castrates and docks pigs. Notches ears to identify animals. Determines weaning dates for pigs based on factors such as condition of sows, cost of feed, and available space in nursery. Vaccinates swine for disease and administers antibiotics and iron supplements, using syringes and hypodermic needles. Formulates rations for swine according to nutritional needs of animals and cost and availability of feeds. Grinds and mixes feed and adds supplements to satisfy dietary requirements. Stores and periodically examines feeds to ensure maintenance of appropriate temperatures and moisture levels. Operates water foggers, air-conditioners, fans, and heaters to maintain optimal temperature in swine confinement buildings. Flushes hog wastes into holding pit. Repairs and maintains machinery, plumbing, physical structures, and electrical wiring and fixtures in swine farrowing, nursery, and finishing buildings. May hire and supervise worker to assist in swine production activities.
GOE: 03.01.01 STRENGTH: M GED: R5 M4 L4 SVP: 7 DLU: 86

410.357-010 MILK SAMPLER (agriculture) alternate titles: sampler
Collects milk samples from farms, dairy plants, and tank cars and trucks for laboratory analysis: Removes sample from bulk tanks, tankers or milking machine, using dipper or pipette, and pours sample into sterile bottles. Weighs samples, using scale. Labels bottle with origin of sample, and packs samples in dry ice. Transports samples to laboratory for bacteriological and butterfat content analysis. Contacts potential customers to explain benefits of testing program to sell milk testing service. May assist customer in interpreting sample test results to maximize benefits to customer. May maintain individual milk production records for each cow in customer's herd.

GOE: 03.04.05 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

410.364-010 LAMBER (agriculture)

Attends to ewes during lambing: Observes ewes to determine delivery time and assists ewes during delivery. Places ewes and lambs in pens or erects canvas tents and places lambs and ewes inside to protect from elements. Assists weak lambs in suckling. Administers artificial respiration or stimulants as needed. Skins dead lambs and ties skins over live lambs to induce ewes to adopt rejected or orphaned lambs. Feeds orphaned lambs from bottle. Feeds and waters ewes while in enclosures. Docks lambs. May castrate lambs.
GOE: 03.04.01 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

410.664-010 FARMWORKER, LIVESTOCK (agriculture) alternate titles: laborer, livestock; ranch hand, livestock

Performs any combination of following tasks to attend livestock, such as cattle, sheep, swine, and goats on farm or ranch: Mixes feed and additives, fills feed troughs with feed, and waters livestock. Herds livestock to pasture for grazing. Examines animals to detect diseases and injuries. Vaccinates animals by placing vaccine in drinking water or feed or using syringes and hypodermic needles. Applies medications to cuts and bruises, sprays livestock with insecticide, and herds them into insecticide bath. Confines livestock in stalls, washes and clips them to prepare them for calving, and assists VETERINARIAN (medical ser.) 073.101-010 in delivery of offspring. Binds or clamps testes or surgically removes testes to castrate livestock. Clips identifying notches or symbols on animal or brands animal, using branding iron, to indicate ownership. Clamps metal rings into nostrils of livestock to permit easier handling and prevent rooting. Docks lambs, using hand snips. Cleans livestock stalls and sheds, using disinfectant solutions, brushes, and shovels. Grooms, clips, and trims animals for exhibition. May maintain ranch buildings and equipment. May plant, cultivate, and harvest feed grain for stock. May maintain breeding, feeding, and cost records. May shear sheep.
GOE: 03.04.01 STRENGTH: H GED: R3 M3 L3 SVP: 4 DLU: 81

410.674-010 ANIMAL CARETAKER (any industry) alternate titles: animal attendant; farmworker, animal

Performs any combination of following duties to attend animals, such as mice, canaries, guinea pigs, mink, dogs, and monkeys, on farms and in facilities, such as kennels, pounds, hospitals, and laboratories: Feeds and waters animals according to schedules. Cleans and disinfects cages, pens, and yards and sterilizes laboratory equipment and surgical instruments. Examines animals for signs of illness and treats them according to instructions. Transfers animals between quarters. Adjusts controls to regulate temperature and humidity of animals' quarters. Records information according to instructions, such as genealogy, diet, weight, medications, food intake, and license number. Anesthetizes, innoculates, shaves, bathes, clips, and grooms animals. Repairs cages, pens, or fenced yards. May kill and skin animals, such as fox and rabbit, and pack pelts in crates. May be designated according to place worked such as Dog-Pound Attendant (government ser.); Farmworker, Fur (agriculture); Helper, Animal Laboratory (pharmaceut.); Kennel Attendant (agriculture); Pet Shop Attendant (retail trade); Veterinary-Hospital Attendant (medical ser.).
GOE: 03.03.02 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 80

410.674-014 COWPUNCHER (agriculture) alternate titles: puncher; ranch rider; rider

Performs any combination of the following duties on a beef cattle ranch to attend to beef cattle: Herds, castrates, and brands cattle. Inspects and repairs fences, windmills, watering troughs, and feed containers. Feeds cattle supplemental food during shortages of natural forage. Trains saddle horses. Rides beside horse being trained to prevent bucking horse or rider from being injured.
GOE: 03.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

410.674-018 LIVESTOCK-YARD ATTENDANT (any industry)

Performs any combination of the following tasks to bed, feed, water, load, weigh, mark, and segregate livestock: Feeds grains, hay, and prepared feed and waters livestock according to schedule. Opens gates and drives livestock to scales, pens, trucks, railcars, and holding and slaughtering areas according to instructions, using electric prod and whip. Weighs animals and records weight. Segregates animals according to weight, age, color, and physical condition. Marks livestock to identify ownership and grade, using brands, tags, paint, or tattoos. Cleans ramps, scales, trucks, railcars, and pens, using hose, fork, shovel, and rake. Scatters new bedding material, such as sawdust and straw, in pens, railcars, and trucks. May vaccinate, apply liniment, drench, isolate, and mark animals to effect disease control program. May make routine repairs and perform general maintenance duties in stockyard.
GOE: 03.04.01 STRENGTH: H GED: R3 M2 L2 SVP: 2 DLU: 77

410.674-022 STABLE ATTENDANT (any industry) alternate titles: barnworker, groom

Cares for horses and mules to protect their health and improve their appearance: Waters animals and measures, mixes and apportions feed and feed supplements according to feeding instructions. Washes, brushes, trims and curries animals' coats to clean and improve their appearance. Inspects animals for disease, illness, and injury and treats animals according to instructions. Cleans animals' quarters and replenishes bedding. Exercises animals. Unloads and stores feed and supplies. May whitewash stables, using brush. May clean saddles and bridles. May saddle animals. May shoe animals. May be designated according to animal cared for as Horse Tender (any industry); Mule Tender (any industry); Stallion Keeper (agriculture).
GOE: 03.03.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

410.684-010 FARMWORKER, DAIRY (agriculture) alternate titles: laborer, dairy farm

Performs any combination of following tasks on dairy farm: Washes and sprays cows with water, insecticides, and repellants. Flushes, brushes, and scrapes refuse from walls and floors to minimize infestation. Examines cows and reports estrus, injuries, and disease to supervisor. Administers prescribed treatments and reports problems requiring veterinary attention to supervisor. Weighs, loads, mixes, and distributes feed. Replaces bedding in stalls. Herds cows from milking parlor to pasture. Loads animals to be sold onto trucks. Cleans and sterilizes milk containers and equipment, and tends pumps that automatically clean milk pipelines. Milks cows by hand and using milking machine. Cultivates, harvests, and stores feed crops, using farm equipment, such as trucks and tractors. May build and maintain fences and farm facilities. May repair and lubricate equipment and machinery. May maintain data, such as breeding and cost records.
GOE: 03.04.01 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 81

410.684-014 SHEEP SHEARER (agriculture) alternate titles: sheep clipper; stock clipper; wool shearer

Shears wool from live sheep, using power-driven clippers or hand shears: Places animal in shearing station. Clips wool close to hide so that fleece is removed in one piece and exercises care to nick or cut skin as little as possible. Herds shorn animal into runway leading to pen. Oils and sharpens clippers and shears. May tie fleece.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

410.685-010 MILKER, MACHINE (agriculture) alternate titles: milking-machine operator

Tends machine that milks dairy cows: Guides cow into stanchion and washes teats and udder of cow with disinfectant. Squeezes cow's teat to collect sample of milk in strainer cup and examines sample for curd and blood. Starts milking machine and attaches cups of machine to teats of cow. Removes cups when required amount of milk is obtained from cow. Dips cups of machine into disinfectant solution after each cow is milked. Pumps milk from receptacles into storage tank and cleans and sterilizes equipment. May notify farm manager of possible diseases or problems in milking cows.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 82

410.687-010 FLEECE TIER (agriculture)

Folds and ties wool fleece into bundle for sacking or grading: Removes heavy tags, dung locks, and badly stained wool from fleece. Spreads fleece on floor with hide side up. Folds loose ends inside and rolls fleece into compact bundle, tying bundle with twisted wool or paper twine. Tosses bundle aside for sacking or grading. May shear sheep [SHEEP SHEARER (agriculture)].
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

410.687-014 GOAT HERDER (agriculture)

Attends herd of goats: Herds goats from corral to fresh pastures. Assists does during kidding season.
GOE: 03.04.01 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

410.687-018 PELTER (agriculture) alternate titles: skinner, pelts

Skins small fur-bearing animals, such as foxes, weasels, mink, and muskrats, for their pelts, using skinning knife.
GOE: 03.04.03 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

410.687-022 SHEEP HERDER (agriculture) alternate titles: herder; mutton puncher; shepherd

Attends sheep flock grazing on range: Herds sheep and rounds up strays using trained dogs. Beds down sheep near evening campsite. Guards flock from predatory animals and from eating poisonous plants. Drenches sheep. May assist in lambing, docking, and shearing. May feed sheep supplementary feed.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

410.687-026 WOOL-FLEECE SORTER (agriculture)

Inspects fleece for dungy locks and badly discolored areas. Segregates fleece in separate piles according to cleanliness of wool, preparatory to bundling or bagging.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

411 DOMESTIC FOWL FARMING OCCUPATIONS

This group includes occupations concerned with breeding, raising, gathering, and caring for domestic fowl and domesticated wild fowl, such as chickens, turkeys, ducks, parrots, and pea fowl, and collecting their products, such as eggs and feathers.

411.131-010 SUPERVISOR, POULTRY FARM (agriculture)

Supervises and coordinates activities of workers engaged in raising poultry, collecting eggs, crating fryers, and maintaining equipment and facilities on poultry farm: Confers with farm manager to ascertain production requirements and to discuss condition of equipment and status of supplies. Assigns workers to duties, such as collecting and candling eggs, feeding and vaccinating poultry, crating and shipping fryers, and cleaning and fumigating chicken houses. Directs maintenance and repair of facilities and equipment, such as chicken houses, automatic feeders, and layer nests. Trains new workers. Participates in work activities to expedite work load. Prepares worker attendance, egg produc-

tion, feed consumption and poultry mortality reports. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to type of farm as Supervisor, Brooder Farm (agriculture); Supervisor, Egg-Producing Farm (agriculture); Supervisor, Fryer Farm (agriculture); Supervisor, Pullet Farm (agriculture); Supervisor, Turkey Farm (agriculture).
GOE: 03.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

411.137-010 SUPERVISOR, POULTRY HATCHERY (agriculture)
Supervises and coordinates activities of workers engaged in receiving and preparing eggs for incubation; incubating eggs; grading, preparing, and shipping chicks in poultry hatchery: Confers with hatchery manager to discuss equipment and supply needs, production and research requirements, and work schedules. Assigns workers to duties, such as egg candling, sorting and traying, incubating eggs, and grading and *debeaking* chicks. Monitors thermometers, gauges, and chart recorders to detect equipment malfunctions and to verify compliance with incubator temperature and ventilation standards. Adjusts controls to maintain specified incubating conditions. Periodically inspects eggs in incubator trays to ascertain hatching progress, and orders removal of chicks. Observes packing of chicks to verify adherence to customer's orders and shipping instructions. Prepares production reports, and requisitions equipment, materials, and supplies. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to type of hatchery as Supervisor, Chicken Hatchery (agriculture); Supervisor, Turkey Hatchery (agriculture).
GOE: 03.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

411.161-010 CANARY BREEDER (agriculture)
Breeds and raises canaries: Places males with females to induce mating. Examines birds for disease and administers prescribed treatments. Maintains genetic and health records. Segregates them according to sex, color, health and vitality, and selects birds for mating to improve strain.
GOE: 03.01.02 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 77

411.161-014 POULTRY BREEDER (agriculture) alternate titles: chicken fancier
Breeds and raises poultry and fowl to improve strain and develop show stock: Selects and pairs birds for breeding or breeds birds by artificial insemination. Incubates eggs to induce hatching. Feeds and waters poultry. Cleans and disinfects poultry houses, cages, and nests. Places vaccines in drinking water, injects vaccines into poultry, or dusts air with vaccine powder to vaccinate poultry against diseases. Maintains growth, feed, and production records. Arranges with buyers for sale of pedigreed eggs, chicks, and birds. May hire and supervise workers.
GOE: 03.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

411.161-018 POULTRY FARMER (agriculture)
Raises poultry to produce eggs and meat: Selects and purchases poultry stock. Feeds and waters poultry. Cleans and disinfects poultry houses, cages, and nests. Places vaccines in drinking water, injects vaccines into poultry; or dusts air with vaccine powder to vaccinate poultry against diseases. Inspects and disposes of or segregates infected poultry. Collects, inspects, and packs eggs and selects and crates pullets and fryers for shipment. Maintains growth, feed, and production records. Arranges with wholesalers for sale of poultry and eggs. May hire and supervise workers. May incubate fertile eggs. May be designated according to kind of poultry raised as Duck Farmer (agriculture); Poultry Farmer, Egg (agriculture); Poultry Farmer, Meat (agriculture); Turkey Farmer (agriculture).
GOE: 03.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

411.267-010 FIELD SERVICE TECHNICIAN, POULTRY (agriculture)
Inspects farms for compliance with contract and cooperative agreement standards and advises farmers regarding development programs to aid in producing quality poultry products: Tours farms to inspect facilities and equipment for adequacy, sanitation and efficiency of operations. Examines chickens for evidence of disease and growth rate (according to weight and age) to determine effectiveness of medication and feeding programs. Recommends changes in facilities, equipment, and medication to improve production, based on knowledge of poultry farming, hatchery operations and processing. Informs farmers of new procedures and techniques, government regulations and company and association production standards to enable them to upgrade farms and meet requirements. Recommends laboratory testing of diseased chickens, feeds, and supplements or gathers samples and takes them to plant laboratory for analysis. Reports findings of farm conditions, laboratory tests, recommendations and farmers' reactions to keep superior apprised of farmers' efforts to furnish quality products.
GOE: 03.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

411.364-010 BLOOD TESTER, FOWL (agriculture)
Tests blood of poultry to ascertain presence of pullorum disease: Picks vein in bird's wing, using needle. Collects blood on wire loop and drops blood into pullorum reactor. Examines blood for specks that indicate presence of pullorum disease. Removes diseased birds from flock.
GOE: 03.04.05 STRENGTH: M GED: R3 M2 L2 SVP: 2 DLU: 77

411.364-014 POULTRY TENDER (agriculture)
Attends to poultry used in experimental tests that determine effects of various feeds and quantities of feed on growth and production of poultry: Segregates poultry into groups according to weight, age, and sex. Selects, weighs, and mixes feeds, according to specific instructions, and fills feeders for each group of poultry with specified feeds. Regulates controls to maintain required temperatures in poultry houses. Maintains records of poultry weights, weights and kinds of feed consumed, eggs produced, deaths, and occurrence of poultry diseases, providing information about effects of various feeds. Places vaccines in drinking water, injects vaccines into poultry, or dusts air with vaccine powder to vaccinate poultry for diseases, such as fowl pox and bronchitis. Ascertains sex of chicks. May attach identification bands to legs or wings of poultry. May clip wings of fowl to prevent flying, wash and clean poultry houses and equipment, and debeak poultry.
GOE: 03.04.01 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

411.384-010 POULTRY INSEMINATOR (agriculture) alternate titles: artificial-insemination technician
Collects semen from roosters and fertilizes hens and eggs: Pinions bird, and collects semen in vial. Examines semen, using microscope, and records density and motility of gametes. Measures specified amount of semen into calibrated syringe and inserts syringe into inseminating gun. Injects semen into oviduct of hen or through hole in egg shell. Records dates of insemination of hens.
GOE: 03.04.05 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

411.584-010 FARMWORKER, POULTRY (agriculture) alternate titles: helper, chicken farm; poultry helper
Performs any combinations of following duties concerned with raising poultry for eggs and meat: Removes chicks from shipping cartons and places them in brooder houses. Cleans and fills feeders and water containers. Sprays poultry houses with disinfectants and vaccines. Inspects poultry for diseases and removes weak, ill, and dead poultry from flock. Collects eggs from trap nests, releases hens from nests, and records number of eggs laid by each hen. Packs eggs in cases or cartons; selects, weighs, and crates fryers and pullets; and records totals packed or crated on shipping or storage document. Maintains feeding and breeding reports. Monitors feed, water, illumination, and ventilation systems; and cleans, adjusts, lubricates, and replaces systems parts, using handtools. May cut off tips of beaks. May be designated according to type of farm or product as Farmworker, Brooder Farm (agriculture); Farmworker, Chicken Farm (agriculture); Farmworker, Egg-Producing Farm (agriculture); Farmworker, Fryer Farm (agriculture); Farmworker, Pullet Farm (agriculture); Farmworker, Turkey Farm (agriculture).
GOE: 03.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

411.684-010 CAPONIZER (agriculture)
Castrates cockerels to prevent development of sexual characteristics: Ascertains that cockerels have not been fed or watered for specified period of time. Binds legs and wings or pinions birds with weights and makes incision between cockerel's last two ribs or beneath and behind wings, using surgical knife or heated knife that cauterizes cut. Removes testicles, using forceps and heated knife or heated forceps.
GOE: 03.04.01 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

411.684-014 POULTRY VACCINATOR (agriculture)
Vaccinates poultry for diseases, such as pox and bronchitis, by placing vaccine in drinking water, dusting air with vaccine powder, injecting vaccine in eye, leg, vent, wing web, or nostril of bird, using medicine dropper or hypodermic needle. May be designated according to poultry vaccinated as Chicken Vaccinator (agriculture).
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

411.687-010 CHICK GRADER (agriculture) alternate titles: poultry culler
Grades baby chicks according to appearance and separates healthy from deformed or diseased chicks: Examines baby chicks for curled toes, blindness, misshapened beaks, discolored downs, and abdominal rigidity. Examines chicks for symptoms of diseases, such as bronchitis and navel infection. Segregates healthy from diseased or deformed chicks. Places diseased chicks in incinerator. May press beak of chicks against hot wire to remove tip of beak. May pack chicks in cartons.
GOE: 03.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

411.687-014 CHICK SEXER (agriculture)
Examines chick genetilia to determine their sex: Turns back skin fold of external cloacal opening or inserts illuminating viewer into cloaca to observe genitals. Places chicks into boxes according to sex. May mark content data on boxes of segregated chicks.
GOE: 03.04.01 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

411.687-018 LABORER, POULTRY FARM (agriculture)
Performs any combination of following duties on poultry farm: Catches chickens and places them in crates and poultry houses. Sprays disinfectants or vaccines on chickens or in poultry houses. Spreads wood shavings over floor, using shovel. Cleans droppings and waste from floor, using broom and shovel, backhoe, or manure-cleaning machine. Dumps sacks of feed on conveyors and in feeders in brood houses. Fills water containers. Repairs farm buildings, fences, and shipping crates, using handtools. Lengthens and shortens ropes to adjust level of feed cans and water troughs. Moves equipment, using wheelbarrow, truck, and cart; or carries equipment from one area to another. Shovels manure onto truck. May stack and move crated eggs and poultry. May drive truck to move and deliver materials. May be designated according to type of farm or product as Laborer, Brooder Farm (agriculture); Laborer, Chicken Farm (agriculture); Laborer, Egg-Producing Farm (agriculture); Laborer, Fryer Farm

(agriculture); Laborer, Pullet Farm (agriculture); Laborer, Turkey Farm (agriculture).
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

411.687-022 LABORER, POULTRY HATCHERY (agriculture) alternate titles: hatchery helper; incubator helper

Performs any combination of following duties in poultry hatchery: Places eggs in incubator trays, wads paper between eggs to secure them, and clips trays to incubator racks. Transfers trays from incubator to hatchery and removes paper wads from between eggs to make room for hatching chicks. Transfers hatched chicks from trays to chick boxes and counts out prescribed number of chicks to each box section. Supplies baby chicks to other workers for sexing, grading, and *debeaking*. May deliver cartons of chicks to designated farms or commercial growing establishments, using truck.
GOE: 03.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

411.687-026 POULTRY DEBEAKER (agriculture) alternate titles: debeaker

Trims and sears beaks, toes, and wings of baby chicks to prevent injury and flight: Inserts chick's beak in guide hole of heated trimmer and depresses pedal to cut off and sear tip of beak or trims and sears chick's beak, using heated hand shears. Trims and sears chick's toes and wings by pressing them against hot wire.
GOE: 03.04.01 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

412 GAME FARMING OCCUPATIONS

This group includes occupations concerned with breeding, raising, and caring for wild animals and birds, raised for game, exhibition, or preservation of species. Occupations concerned with raising and maintaining domesticated wild animals are included in groups 410 and 411.

412.131-010 SUPERVISOR, GAME FARM (agriculture)

Supervises and coordinates activities of workers engaged in breeding, raising, and protecting game on private or state game farm: Plans daily schedule and assigns workers to tasks, such as feeding and watering animals, cleaning pens and yards, gathering, incubating, and hatching eggs, planting cover crops, and maintaining buildings and equipment. Oversees preparation and transfer of game to zoos, filming locations, and release areas. Directs feeding and watering of game, cleaning of pens and yards, and maintenance of buildings and equipment. Observes game to detect signs of illnesses and injuries, treats minor ailments, and notifies MANAGER, GAME PRESERVE (agriculture) of serious illnesses and injuries. Trains workers in methods of raising, training, and transferring game. Records number and specie of game animals raised and location of release sites. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 5 DLU: 77

412.137-010 ANIMAL KEEPER, HEAD (amuse. & rec.) alternate titles: keeper, head; superintendent, menagerie

Supervises and coordinates activities of workers engaged in care and exhibition of birds and animals at establishments, such as zoos or circuses: Observes animals to detect signs of illness and consults with VETERINARIAN (medical ser.) to determine type of medication or treatment required. Inspects cages, grottos, and pens for cleanliness and structural defects. Assigns workers to various tasks, and oversees treatment, preparation of food, feeding of animals, and maintenance and repair of animal quarters. Specifies type of animal to exhibit in zoo and location of exhibit, according to weather, animal behavior characteristics, and physical condition. Performs other duties as described under SUPERVISOR (any industry) Master Title. May hire, train, and discharge workers. May keep time records and prepare supply requisitions and reports. May coordinate training of animals for circus performance. May give lectures to public to stimulate interest in animals.
GOE: 03.03.02 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

412.161-010 GAME-BIRD FARMER (agriculture)

Breeds and raises wild birds, such as pheasant, quail, or partridge: Feeds and waters birds and cleans bird pens and yards. Examines birds to detect signs of illness, and innoculates ill birds with antibiotics. Removes eggs from nests and hatches eggs in incubator. Clips birds' wings to prevent flight. Trims bills of birds to prevent injury. Exhibits prize birds at shows. Crossbreeds birds to improve strain and develop new types. Builds and repairs pens and yards. Arranges with hunting and gun clubs, game preserves, or poultry houses for sale of birds. May be designated according to type of game bird raised as Partridge Farmer (agriculture); Pheasant Farmer (agriculture); Quail Farmer (agriculture).
GOE: 03.01.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

412.674-010 ANIMAL KEEPER (amuse. & rec.) alternate titles: animal caretaker; menagerie caretaker; zoo caretaker

Feeds, waters, and cleans quarters of animals and birds in zoo, circus, or menagerie: Prepares food for charges by chopping or grinding meat, fish, fruit, or vegetables; mixing prepared, dry, or liquid commercial feeds; or unbaling forage grasses. Adds vitamins or medication to food as prescribed by VETERINARIAN (medical ser.) 073.101-010. Fills water containers and places food in cages as specified. Cleans animals' quarters, using rake, water hose, and disinfectant. Observes animals to detect illnesses and injuries and notifies ANIMAL KEEPER, HEAD (amuse. & rec.) 412.137-010 or VETERINARIAN (medical ser.) of findings. Transfers animals from one enclosure to another for purposes such as breeding, giving birth, rearrangement of exhibits, or shipping. Sets temperature and humidity controls of quarters as specified. Answers visitors' questions concerning animals' habits or zoo operations. Bathes and grooms animals as required. May assist VETERINARIAN (medical ser.) in treatment of animals for illnesses and injuries. May assist ANIMAL TRAINER (amuse. & rec.) 159.224-010 or instructor in presentation of programs, shows, or lectures. May assist maintenance staff in cleaning zoo facilities. May be designated according to animal cared for as Bear Keeper (amuse. & rec.); Elephant Keeper (amuse. & rec.); Monkey Keeper (amuse. & rec.); or according to species as Bird Keeper (amuse. & rec.); Mammal Keeper (amuse. & rec.). May direct activities of other workers.
GOE: 03.03.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 81

412.674-014 ANIMAL-NURSERY WORKER (amuse. & rec.; museums) alternate titles: children's zoo caretaker

Cares for newborn and young animals in zoo nursery and exhibit area: Prepares liquid formula, cereal, and other foods for young animals according to direction of ZOO VETERINARIAN (medical ser.) 073.101-018 and prepares standard diet foods for mothers of newborn animals according to requirements of species. Fills sterilized nursing bottles with formula and feeds animals that have been orphaned or deserted, or that require food in addition to that provided by mother. Observes newborn animals to detect indications of abnormality or disease, and notifies ZOO VETERINARIAN (medical ser.) when such indications are evident. Periodically conducts physical examination of young animals, performing such tasks as taking temperatures, blood pressure, and pulse rate, and weighing and measuring animals. Maintains records of animal weights, sizes, and physical conditions to be used in zoo account of animals born in captivity. Adjusts humidity and temperature controls to maintain specified environmental conditions in nursery or exhibit area. Installs equipment such as infrared light stands, cribs, or feeding devices in young animal exhibit area. Explains to visitors procedures for care and feeding of young animals, and answers questions concerning factors such as native habitats and breeding habits. Observes children petting or feeding animals in designated area and cautions children against activities that might be harmful to animals.
GOE: 03.03.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 86

412.684-010 GAME-FARM HELPER (agriculture) alternate titles: laborer, game farm

Performs any combination of duties to attend game, such as ducks, pheasants, bears, cougars, and lions on private or state game farm: Feeds and waters game. Gathers bird eggs from field nests and places eggs in incubators. Brails (ties) wings of birds to prevent flying. Cleans water containers, pens, cages, and yards. Maintains and repairs fences, coops, pens, buildings, and equipment. Observes game to detect signs of illness and adds prescribed medications to food and water. Crates or cages game to prepare for movement. Transports game to release areas, filming locations, and zoos, using truck. Sets and maintains traps to protect birds from predatory animals. May operate farm equipment to cultivate and plant field crops.
GOE: 03.04.01 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

412.687-010 COMMISSARY ASSISTANT (amuse. & rec.; museums) alternate titles: commissary helper; food preparer

Stores, prepares, and delivers foods for zoo or aquarium animals: Unloads meats, produce, fodder, and other food items from delivery vehicle, using handtruck. Sorts and stores items on shelves, in bins, or in refrigerated storage room of commissary. Assembles food items needed for diet of various animals as directed by supervisory personnel. Measures, weighs, or counts items to obtain amount of food specified for diet plans. Bundles fodder, washes produce, and cuts away defects. Sorts assembled items according to destinations, loads items into truck, and drives truck to animal quarters. Assists ANIMAL KEEPER (amuse. & rec.) 412.674-010 in carrying food to preparation areas or in selecting and loading food into truck or cart.
GOE: 03.03.02 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 86

413 LOWER ANIMAL FARMING OCCUPATIONS

This group includes occupations concerned with breeding, raising, gathering, and caring for lower animals, such as bees, worms, and snakes, and collecting their products, such as honey and venom.

413.161-010 BEEKEEPER (agriculture) alternate titles: apiarist; bee farmer; bee raiser; bee rancher; honey producer

Raises bees to produce honey and pollinate crops: Assembles beehives, using handtools. Arranges with sellers for purchases of honeybee colonies. Inserts honeycomb of bees into beehive or inducts wild swarming bees into hive of prepared honeycomb frames. Places screen plug in hive entrance to confine bees and sets hive in orchard, clover field, or near other source of nectar and pollen. Forces bees from hive, using smoke pot or by placing carbolic acid soaked pad over hive to inspect hive and to harvest honeycombs. Scrapes out parasites, such as wax moth larvae, and removes vermin, such as birds and mice. Collects royal jelly from queen bee cells for sale as base for cosmetics and as health food. Destroys superfluous queen bee cells to prevent division of colony by swarming. Destroys diseased bee colonies, using cyanide gas. Burns hive of diseased bee colony or sterilizes hive, using caustic soda solution. Uncaps harvested honeycombs and extracts honey. Arranges with buyers for

sale of honey. May cultivate bees to produce bee colonies and queen bees for sale and be designated Bee Producer (agriculture); Queen Producer (agriculture).
GOE: 03.01.02 STRENGTH: H GED: R3 M3 L3 SVP: 7 DLU: 81

413.161-014 REPTILE FARMER (agriculture)
Breeds and raises reptiles for exhibition, preservation, meat, venom, and skins: Buys or captures reptiles, such as snakes and tortoises and keeps them in cages that simulate their natural habitat. Feeds and waters animals according to appropriate schedule for species. Examines reptile for signs of illness, injury or parasites, and administers prescribed treatment. Cleans animal pens, using rake and hose. Records breeding data. Kills reptiles and sells meat and skins. Extracts venom from live snakes. May specialize in raising rattlesnakes and be designated Rattlesnake Farmer (agriculture).
GOE: 03.01.02 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

413.161-018 WORM GROWER (agriculture) alternate titles: fish-worm grower
Breeds and raises earthworms for sale as fishing bait, garden soil conditioners, and food for exotic fish and animals: Mixes sand, loam, and organic materials to make growing media for worms, fills growing tubs with media and adds water. Plants mature worms in growing media for breeding stock, spreads food materials over surface of media and covers it with burlap. Inspects food supply and moisture of growing media and adds water and food to maintain optimum breeding conditions for worms. Shovels worm-laden media onto screen and shakes screen to remove worms. Places specified number of worms into sales container and scoops required amount of growing media into container to sustain worms. Sells earthworms to buyers. May dry worms under heat lamps and grind and package them for sale as tropical fish food.
GOE: 03.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

413.687-010 WORM PICKER (agriculture) alternate titles: fish-bait picker
Gathers worms to be used as fish bait: Walks about grassy areas, such as gardens, parks, and golf courses, after dark and picks up earthworms (commonly called dew worms and night crawlers). Sprinkles chlorinated water on lawn to cause worms to come to surface, and locates worms by use of lantern or flashlight. Sorts worms and packs them in containers for shipment.
GOE: 03.04.01 STRENGTH: L GED: R2 M1 L1 SVP: 1 DLU: 77

413.687-014 WORM-FARM LABORER (agriculture) alternate titles: worm-bed attendant; worm raiser
Mixes sand, loam, and specified organic materials to make growing media for breeding earthworms. Dumps media into growing tubs to breed earthworms, and waters and fertilizes media during breeding and growing period. Shovels worm-laden media onto screen, and shakes screen to separate worms. Counts earthworms, sorts them according to size, and packs them in containers.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 1 DLU: 77

413.687-018 BEE WORKER (agriculture)
Attends bee colony to produce queen bees: Fits bar containing cell cups grafted with bee larvae into notched hive frame to prepare frame for placement in cell building hive in which bees form queen cells on cup base. Blows smoke into hive to quiet bees, using smoke producing device. Reads grafting date, opens hive, and inserts frame in sequence by date. Pulls out queen cell frame of specified age and places frame in incubator to continue maturation process. Opens hive and pours sugar on tops of frames to feed bees. Mixes and kneads specified types and quantities of ingredients to make bee candy. Presses piece of candy into end of queen shipping cage to provide food for queen and workers during shipping. May construct shipping cages. May select and collect queen bees meeting specified criteria for shipping.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

418 ANIMAL SERVICE OCCUPATIONS

This group includes occupations concerned with furnishing services in support of breeding, raising, caring for animals, and collecting their products.

418.137-010 SUPERVISOR, LABORATORY ANIMAL FACILITY (agriculture)
Supervises and coordinates activities of workers involved in operations of animal research facility: Plans budget and arranges purchase of items, such as animal feed, medicines, and research instruments. Advises workers regarding requirements of research projects and requirements for compliance with federal guidelines for operation of research facility. Instructs workers regarding procedures, such as feeding and cleaning schedules and compilation of data for research reports. Monitors care and health of animals. Reviews work of personnel to verify accuracy of research and reports and to determine established procedures are followed.
GOE: 02.04.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 86

418.137-014 SUPERVISOR, RESEARCH KENNEL (agriculture)
Supervises and coordinates activities of workers engaged in caring for domestic animals in research kennel: Directs and assists workers in maintaining kennel in prescribed condition and in feeding and caring for animals in conformance with research study requirements. Monitors progress of studies, such as animal food palatability and drug effectiveness tests, to verify adherence to study guidelines. Prepares activity charts to assist subordinates in performing duties. Observes animals to detect signs of illness or injury and notifies designated personnel of unusual conditions. Compiles research study reports from log entries to prepare data for use by researchers, using calculator.
GOE: 03.02.01 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 86

418.381-010 HORSESHOER (agriculture) alternate titles: plater
Selects aluminum and steel shoes (plates) and fits, shapes, and nails shoes to animals' hooves: Removes worn or defective shoe from hoof, using nail snippers and pincers. Examines hoof to detect bruises and cracks and to determine trimming required. Trims and shapes hoof, using knife and snippers. Measures hoof, using calipers and steel tape. Selects aluminum or steel shoe from stock, according to hoof measurements and animal usage. Places leather pad, sponge, or oakum-pine tar mixture on bruised or cracked hoof for protection. Shapes shoe to fit hoof, using swage, forge, and hammer. Nails shoe to hoof and files hoof flush with shoe. May forge steel bar into shoe. May drive shop truck to work site.
GOE: 03.03.02 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

418.384-010 ARTIFICIAL INSEMINATOR (agriculture) alternate titles: inseminator
Injects prepared bull semen into vagina of cows to breed them: Observes animal in heat to detect approach of estrus. Selects semen specimen according to breeding chart and pours semen into breeding syringe. Cleans cow's vulva with soap, water, and antiseptic solution. Inserts nozzle of syringe into vagina and depresses syringe plunger to inject seminal fluid. Maintains log of semen specimens used and cows bred. May exercise animal to induce or hasten estrus.
GOE: 03.04.05 STRENGTH: M GED: R3 M3 L2 SVP: 3 DLU: 77

418.384-014 ARTIFICIAL-BREEDING TECHNICIAN (agriculture) alternate titles: breeding technician
Collects and packages bull semen for artificial insemination of cows: Attaches rubber collecting sheath to genital organ of tethered bull, and stimulates animal's organ to excite ejaculation. Examines semen, using microscope, to determine density and motility of gametes, and dilutes semen with prescribed diluents according to formulas. Transfers required amount of semen to container, using titration tube, and labels it with identifying data, such as date taken, source, quality, and concentration, and records similar data on file cards. Packs container of semen in dry ice or liquid nitrogen for freezing and storage or shipment. May inseminate cows [ARTIFICIAL INSEMINATOR (agriculture)].
GOE: 03.02.04 STRENGTH: L GED: R3 M3 L2 SVP: 6 DLU: 77

418.674-010 DOG GROOMER (personal ser.) alternate titles: dog beautician; dog-hair clipper
Combs, clips, trims, and shapes dogs' coats to groom dogs, using knowledge of canine characteristics and grooming techniques and styles: Reads written or receives oral instructions to determine clipping pattern desired. Places dog on grooming table and fits grooming collar on dog to hold animal to table. Studies proportions of dog to determine most appropriate cutting pattern to achieve desired style. Clips dog's hair according to determined pattern, using electric clippers, comb, and barber's shears. Combs and shapes dog's coat. Talks to dog or uses other techniques to calm animal.
GOE: 03.03.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

418.677-010 DOG BATHER (personal ser.)
Bathes dogs in preparation for grooming: Combs and cuts out heavy mats from dog's coat, using barber shears and steel comb. Brushes fur to remove dead skin, using dog brush. Draws bath water and regulates temperature. Washes dog, using perfumed soap or shampoo and handbrush and repeats process until dog is clean. Dries dog, using towel and electric drier. Cleans animals' quarters. May trim and shape dog's coat and clip toenails, using scissors and clippers.
GOE: 03.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

419 ANIMAL FARMING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with animal farming and related activities.

419.224-010 HORSE TRAINER (agriculture; amuse. & rec.)
Trains horses for riding, show, work, or racing: Feeds, exercises, grooms, and talks to horses to accustom them to human voice and contact. Talks to horses to calm and encourage them to follow lead, or standstill when hitched or groomed. Places tack or harness on horse to accustom horse to feel of equipment. Mounts and rides saddle horse to condition horse to respond to oral, spur, or rein command, according to knowledge of horse's temperament and riding technique. Hitches draft horse to wagon, sledge, or other horse drawn equipment and conditions horse to perform in single or multiple hitch, using rein and oral commands. Trains horses for show competition according to prescribed standards for gaits, form, manners, and performance, using knowledge of characteristics of different breeds and operating routines of horse shows. Retrains horses to break habits, such as kicking, bolting, and resisting bridling and grooming. Usually specializes in conditioning and developing horses of one breed only, or in training horses for one type of riding, driving, racing, or show activity. May train horses for racing, utilizing knowledge of training methods to plan training, according to peculiarities of each horse and instructs JOCKEY (amuse. & rec.) 153.244-010 on how to handle specific horse during race and

be designated Racehorse Trainer (amuse. & rec.). May train horses or other equines to carry pack loads and work as part of pack train. May arrange for mating of stallions and mares, and assist mares during foaling. May train horses as independent operator and advise owners on purchase of horses.
GOE: 03.03.01 STRENGTH: M GED: R3 M2 L2 SVP: 7 DLU: 77

42 MISCELLANEOUS AGRICULTURAL AND RELATED OCCUPATIONS

This division includes occupations concerned with activities which are not specifically related to either plant or animal agricultural activities or which may be concerned with a combination of both.

421 GENERAL FARMING OCCUPATIONS

This group includes occupations concerned with combined plant and animal farming.

421.161-010 FARMER, GENERAL (agriculture)
Raises both crops and livestock: Determines kinds and amounts of crops to be grown and livestock to be bred, according to market conditions, weather, and size and location of farm. Selects and purchases seed, fertilizer, farm machinery, livestock, and feed, and assumes responsibility for sale of crop and livestock products. Hires and directs workers engaged in planting, cultivating, and harvesting crops, such as corn, peas, potatoes, strawberries, apples, peanuts, and tobacco, and to raise livestock, such as cattle, sheep, swine, horses, and poultry. Performs various duties of farm workers, depending on size and nature of farm, including setting up and operating farm machinery.
GOE: 03.01.01 STRENGTH: H GED: R4 M4 L4 SVP: 7 DLU: 77

421.683-010 FARMWORKER, GENERAL I (agriculture) alternate titles: hired worker
Drives trucks and tractors and performs variety of animal and crop raising duties as directed on general farm: Plows, harrows, and fertilizes soil, and cultivates, sprays, and harvests crops, using variety of tractor-drawn machinery [FARM-MACHINE OPERATOR (agriculture)]. Cares for livestock and poultry, observing general condition and administering simple medications to animals and fowls. Hauls feed to livestock during grass shortage and winter months. Operates, repairs, and maintains farm implements and mechanical equipment, such as tractors, gang plows, ensilage cutters, hay balers, cottonpickers, and milking machines. Repairs farm buildings, fences, and other structures. May irrigate crops. May haul livestock and products to market [TRUCK DRIVER, HEAVY (any industry); TRUCK DRIVER, LIGHT (any industry)]. Usually works year-round and may oversee casual and seasonal help during planting and harvesting.
GOE: 03.04.01 STRENGTH: H GED: R3 M2 L3 SVP: 5 DLU: 77

421.687-010 FARMWORKER, GENERAL II (agriculture) alternate titles: chore tender; farm laborer
Performs variety of manual, animal-and-crop-raising tasks on general farm under close supervision: Feeds and waters cattle, poultry, and pets. Cleans barns, stables, pens, and kennels, using rake, shovel, water, and other cleaning materials. Digs seedlings, such as tobacco plants, strawberries, tomatoes, and orchard trees, using hoe, and transplants them by hand. Shovels earth to clear irrigation ditches and opens sluice gates to irrigate crops. Cleans plows, combines, and tractors, using scraper and broom. Picks, cuts, or pulls fruits and vegetables to harvest crop. Stacks loose hay, using pitchfork, or pitches hay into automatic baling machine. Stacks bales of hay and bucks them onto wagon or truck, using handhook.
GOE: 03.04.01 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

429 MISCELLANEOUS AGRICULTURAL AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with miscellaneous agricultural and related occupations.

429.387-010 COTTON CLASSER (agriculture; textile) alternate titles: cotton grader
Classifies cotton according to grade, staple length, and character, employing knowledge of cotton fiber and standards for various grades as established by U.S. Department of Agriculture: Examines cotton sample to detect variations in color; foreign matter, such as pieces of bolls, leaves, or twigs; undeveloped seeds, sand, and dust; and preparation defects, such as gin-cut fibers and neps. Pulls layer of fibers from cotton sample with fingers to form rectangular tuft, places tuft on black background, and estimates or measures staple length, using cotton-stapling rule. Determines character (strength, uniformity, and cohesive quality) of fibers by pulling sample tuft apart between fingers, observing effort expanded in breaking sample, fineness of fibers, and drag as fibers cling to each other. Classifies fibers according to standards for various grades. May examine fibers through microscope to determine maturity and spirality of fibers. Records grade on bale identification tag and bale number and grade on shipping, receiving, or sales sheet.
GOE: 06.01.05 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

429.587-010 COTTON CLASSER AIDE (agriculture)
Performs any combination of following duties to assist COTTON CLASSER (agriculture; textile) 429.387-010: Records grades called out by COTTON CLASSER (agriculture; textile) on sample classification certificates and related documents. Summarizes and tabulates classification results, using specified numeric symbols. Assembles classification certificates and other records for mailing to growers, government officials, and other designated recipients. Carries cotton samples to and from storage and grading areas. May assist in testing cotton samples.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 86

429.685-010 GINNER (agriculture)
Tends variety of machines, such as dryers, cleaners, gin stands, and linters, that dry, clean, and separate cotton lint from seed and waste material: Slides hand into seed chutes and removes accumulations of seed. Observes saw ribs in gin stand and linter screens to detect clogging. Removes cotton manually or using ginstick. Opens gas supply valve and pushes alarm switch to warn workers that machinery is starting. Pushes switches to start separator, vacuum, and trash fans; seed augers; linters; cleaners; and other auxillary equipment. Turns control knobs on automatic dryers to ignite fire and set drying temperature. Ascertains seed-handling instructions from seed tags, pulls ropes to open gates, allowing seeds to be deposited in hoppers according to instructions, and resets automatic seed-weighing counter. Pulls ropes to open suction gates and start suction that controls flow of cotton through equipment. Listens to sounds of running machinery, observes flow of seeds and cotton, feels cotton sample, and sniffs air to detect equipment malfunction and maladjustment and burning cotton. Stops machine and removes obstructions, adjusts dryer temperature, and regulates cotton feed to correct malfunctions, achieve optimum drying of cotton, and maintain maximum ginning capacity of machines. Closes suction gates after last bale of order has been ginned. Records seed weight and bale weight on report form. Periodically replaces worn and defective parts on machines. Lubricates motors, bearings, and other friction surfaces. May be identified with machines tended or with work performed, such as linting, cleaning, drying, and ginning.
GOE: 05.12.07 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 81

429.685-014 THRESHER, BROOMCORN (agriculture)
Tends machine that threshes and bales broomcorn straw: Cuts string or rubber band binding from sheaves of broomcorn straw, using knife, and feeds straw into threshing machine to remove seeds. Off bears straw from discharge end of threshing machine and drops straw into bucket to align straw. Hands bucket of aligned broomcorn straws to PRESS FEEDER, BROOMCORN (agriculture) who places straws in compression chamber of hydraulic press. Closes compression chamber and starts hydraulic press to compress broomcorn straws into bale. Ties wire around bale and pushes bale from chamber.
GOE: 03.04.01 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

429.686-010 PRESS FEEDER, BROOMCORN (agriculture)
Feeds hydraulic press that bales broomcorn straw: Places broomcorn in compression chamber of hydraulic press. Aligns stalks of straw in chamber to ensure that straws are not broken when compressed. Signals THRESHER, BROOMCORN (agriculture) to bale broomcorn straw.
GOE: 03.04.01 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

44 FISHERY AND RELATED OCCUPATIONS

This division includes occupations concerned with seeding, cultivating, transplanting, stocking, catching, or gathering aquatic life of any kind or their remains.

441 NET, SEINE, AND TRAP FISHERS

This group includes occupations concerned with catching or gathering aquatic animal life by use of such equipment as nets, traps, and pots.

441.132-010 BOATSWAIN, OTTER TRAWLER (fishing & hunt.)
Supervises and coordinates activities of fishing vessel crew engaged in deploying, retrieving, and repairing otter trawl net to catch fish, and operates winches to launch, tow, haul, hoist, and dump net: Confers with CAPTAIN, FISHING VESSEL (fishing & hunt.) 197.133-010 or MATE, FISHING VESSEL (fishing & hunt.) 197.133-018 to ascertain specified fishing depth, terrain of ocean floor, and location of fish concentrations, and selects required otter trawl net and other fishing gear accordingly. Directs crew in attachment of floats, weights, otter boards (net guides), and other gear to trawl net preparatory to net deployment. Directs lowering of net over side of vessel, and moves winch controls to release otter boards and tow cables into sea. Observes action of otter boards to ensure that net is tangle free and in desired position, and moves winch controls to maintain even alignment and designated depth of net behind vessel, according to markings on tow cables. Monitors tension on tow cables during tow and moves winch controls as necessary to free net when snagged on obstructions, such as rough bottom, rock pinnacles, or sunken ships. Moves winch controls to haul filled trawl net from sea bottom to ship's stern, and directs crew to specified stations for retrieval of net and dumping of fish onto deck. Trains and directs crew in maintenance of fishing gear, such as reinforcing or replacing frayed or missing sections of trawl net and splicing frayed or weakened tow cables.
GOE: 03.04.03 STRENGTH: H GED: R4 M2 L3 SVP: 7 DLU: 86

441.683-010 SKIFF OPERATOR (fishing & hunt.)
Operates seiner skiff to hold one end of purse seine in place while purse seiner circles school of fish to set net. Holds purse seine away from ship during

pursing and brailing operations. May splash water with pole, on opposite side of school away from purse seiner, to prevent fish from escaping as fish are encircled by purse seine. May locate schools of fish sighted by other fishers.
GOE: 03.04.03 STRENGTH: H GED: R3 M1 L2 SVP: 4 DLU: 77

441.684-010 FISHER, NET (fishing & hunt.)
Catches finfish, shellfish, and other marine life alone or as crewmember on shore or aboard fishing vessel, using equipment such as dip, diver, gill, hoop, lampara, pound, trap, reef, trammel, and trawl nets; purse seine; and haul, drag, or beach seine: Inserts and attaches hoops, rods, poles, ropes, floats, weights, beam runners, otter boards, and cables to form, reinforce, position, set, tow, and anchor net. Attaches flags and lights to buoys to identify net location. Puts net into water and anchors or tows net according to kind of net used, location of fishing area, and method of fishing. Hauls net to boat or ashore manually and using winch. Empties catch from net, using dip net, brail, buckets, hydraulic pump, and conveyor, and by lifting net, using block and tackle, and dumping catch. Stows catch in hold and containers, or transfers catch to base ship or buy boat. Fishing with some types of nets may be illegal in some states. May ride in skiff and hold end of net, as base ship discharges net, to surround school of fish or to pull net ends and trap fish. May sort and clean fish. May repair fishing nets and gear. May act as lookout or observe instruments to sight schools of fish. May be designated according to kind of net used as Fisher, Dip Net (fishing & hunt.); Fisher, Diver Net (fishing & hunt.); Fisher, Gill Net (fishing & hunt.); Fisher, Hoop Net (fishing & hunt.). May be designated: Fisher, Haul, Drag, Or Beach Seine (fishing & hunt.); Fisher, Lampara Net (fishing & hunt.); Fisher, Pound Net or Trap (fishing & hunt.); Fisher, Purse Seine (fishing & hunt.); Fisher, Reef Net (fishing & hunt.); Fisher, Trammel Net (fishing & hunt.); Fisher, Trawl Net (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

441.684-014 FISHER, POT (fishing & hunt.)
Fishes for marine life, including crab, eel, or lobster, using pots (cages with funnel-shaped net openings): Ties marker float to line, attaches line to pot, fastens bait inside pot, and lowers pot into water. Hooks marker float with pole and pulls up pot. Reaches through hinged door of pot to remove catch or dumps catch on deck. Measures catch with fixed gauge to ensure compliance with legal size. Places legal catch in container and tosses illegal catch overboard. Places peg in hinge of claws to prevent lobsters, in container, from killing each other. May rig and lower dredge (rake scoop with bag net attached), drag dredge behind boat to gather marine life from water bottom, and hoist it to deck by hand or using block and tackle. May be designated according to type of marine life fished for as Fisher, Crab (fishing & hunt.); Fisher, Eel (fishing & hunt.); Fisher, Lobster (fishing & hunt.). May work alone or as member of crew.
GOE: 03.04.03 STRENGTH: V GED: R2 M1 L1 SVP: 2 DLU: 77

441.684-018 FISHER, TERRAPIN (fishing & hunt.)
Catches terrapins by stretching net across marsh, creek, or river and routing terrapins downstream or with tide into net. May pole skiff among grassy waters and catch terrapins with hand net. May catch terrapins by hand while wading in mud and probing with stick.
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

441.684-022 FISHER, WEIR (fishing & hunt.) alternate titles: fisher, trap
Constructs weirs of brush or netting to catch fish: Drives poles and stakes in channels at points of land extending into water, between islands, or in rapids to form circular or heart-shaped enclosure. Fastens stringers and weaves brush or netting horizontally between posts and stakes. Constructs lead of brush to deflect fish into trap. Removes fish from weir with purse seine. This method of fishing is considered illegal in some states when navigation and conservation are obstructed.
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

442 LINE FISHERS

This group includes occupations concerned with catching aquatic animal life by means of baited, hooked, and entangling lines.

442.684-010 FISHER, LINE (fishing & hunt.) alternate titles: fisher
Catches fish and other marine life with hooks and lines, working alone or as member of crew: Lays out line and attaches hooks, bait, sinkers, and various anchors, floats, and swivels, depending on quarry sought. Puts line in water, and holds, anchors, or trolls (tows) line to catch fish. Hauls line onto boat deck or ashore by hand, reel, or winch, and removes catch. Stows catch in hold or boxes and packs catch in ice. May hit fish with club to stun it before removing it from hook. May fish with gaff to assist in hauling fish from water. May slit fish, remove viscera, and wash cavity to clean fish for storage. May steer vessel in fishing area. When fishing with line held in hand, is designated Fisher, Hand Line (fishing & hunt.). When fishing with fixed line equipped with hooks hung at intervals on line, is designated according to whether line is trawl (anchored in water at both ends) as Fisher, Trawl Line (fishing & hunt.); or trot (reaching across stream or from one bank) as Fisher, Trot Line (fishing & hunt.). When fishing with line that is trolled, is designated Fisher, Troll Line (fishing & hunt.).
GOE: 03.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

443 FISHERS, MISCELLANEOUS EQUIPMENT

This group includes occupations concerned with catching and gathering aquatic animal life by means of equipment other than that used in Groups 441 and 442.

443.664-010 FISHER, DIVING (fishing & hunt.)
Gathers or harvests marine life, such as sponges, abalone, pearl oysters, and geoducks from sea bottom, wearing wet suit and scuba gear, or diving suit with air line extending to surface: Climbs overboard or is lowered into water from boat by lifeline. Picks up pearl oysters; tears sponges from sea bottom; pries abalone from rocks, using bar; and flushes geoducks from sand, using air gun connected to air compressor on boat. Places catch in bag or basket and tugs on line to have catch pulled to boat, or surfaces and empties catch on boat or in container. Signals other workers to extend or retract air lines. May monitor air lines and operate air compressor as alternating member of diving crew. May be designated according to quarry sought as Abalone Diver (fishing & hunt.); Geoduck Diver (fishing & hunt.); Pearl Diver (fishing & hunt.); Sponge Diver (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

443.684-010 FISHER, SPEAR (fishing & hunt.) alternate titles: harpooner, fish; spearer
Catches fish, such as eels, salmon, and swordfish, using barbed spear: Spears fish from platform built in stream or on river bank or from fishing vessel, using harpoon attached to buoy by rope, and allows fish to tire. Hoists fish from water, using gaff. Kills swordfish with club, rifle, or gaff. May be designated according to gear used as Fisher, Eel Spear (fishing & hunt.); Gaffer (fishing & hunt.); Harpooner (fishing & hunt.); or according to quarry sought as Fisher, Swordfish (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

446 AQUATIC LIFE CULTIVATION AND RELATED OCCUPATIONS

This group includes occupations concerned with such activities as breeding, caring for, planting, transplanting, harvesting, or transferring (stocking with) aquatic animals or plant life. Includes developing and maintaining the subsistence environment of such life.

446.133-010 SUPERVISOR, SHELLFISH FARMING (fishing & hunt.)
Supervises and coordinates activities of workers engaged in planting, cultivating, and harvesting shellfish: Confers with manager to determine time and place of seed planting, cultivating, feeding, and harvesting shellfish. Plans work schedules according to tidal levels, and availability of personnel and equipment. Inspects beds and ponds to ascertain the quality of seed distribution, adequacy of cultivation, and completeness of harvesting, and directs workers to correct deviations and irregularities. Oversees maintenance of planting, cultivating, and harvesting equipment, *tidal pens*, and shellfish beds. Trains worker to drive or operate equipment, and in methods and techniques of shellfish farming. Performs other duties as described under SUPERVISOR (any industry) Master Title. May assign workers to guard pens and beds against encroachment. May record planting and harvesting data, and keep workers' time records. May supervise workers engaged in farming a specific type of shellfish and be designated Supervisor, Clam-Bed (fishing & hunt.); Supervisor, Oyster Farm (fishing & hunt.); Supervisor, Shrimp Pond (fishing & hunt.).
GOE: 03.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 77

446.134-010 SUPERVISOR, FISH HATCHERY (fishing & hunt.)
Supervises and coordinates activities of workers engaged in trapping and spawning fish, incubating eggs, and rearing fry in fish hatchery: Assigns workers in collecting, fertilizing and incubating of spawn, and transferring of fingerlings to rearing ponds and tanks. Oversees treatment and rearing of fingerlings. Observes appearance and actions of developing fish to detect diseases, and specifies medications to be added to food and water. Coordinates work schedule and directs workers to feed, sort, and transfer fish to designated ponds, streams, or commercial holding tanks. Trains workers in methods of spawning and rearing fish. Records number and type of fish reared, released, or sold. Performs other duties as described under SUPERVISOR (any industry) Master Title. May supervise workers engaged in rearing food fish or tropical and exotic fish and be designated Supervisor, Commercial Fish Hatchery (fishing & hunt.).
GOE: 03.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

446.161-010 FISH FARMER (fishing & hunt.)
Spawns and raises fish for commercial purposes: Strips eggs from female fish and places eggs in moist pans. Adds milt stripped from male fish to fertilize eggs. Fills hatchery trays with fertilized eggs and places trays in incubation troughs. Turns valves and places baffles in troughs to adjust volume, depth, velocity, and temperature of water. Transfers fingerlings to rearing ponds. Feeds high protein foods or cereal with vitamins and minerals to fingerlings to induce growth to size desired for commercial use. Arranges with buyers for sale of fish. Removes fish from pond, using dip net. Counts and weighs fish. Loads fish into tank truck, or dresses and packs in ice for shipment. May perform

standard tests on water samples to determine oxygen content. May be designated according to kind of fish raised as Trout Farmer (fishing & hunt.).
GOE: 03.01.02 STRENGTH: M GED: R4 M1 L2 SVP: 6 DLU: 77

446.161-014 SHELLFISH GROWER (fishing & hunt.) alternate titles: oyster culturist
Cultivates and harvests beds of shellfish, such as clams and oysters: Lays out and stakes tide flats (ground beneath shallow water near shoreline). Piles up stone, poles, and mud, using farm tractor and hand implements to make dikes to control water drainage at low tide. Removes debris by hand and levels soil with tractor and harrow. Sows spat by hand or with shovel or sets out strings or baskets of shells onto which spat attaches. Covers seeded area with mixture of sand and broken shells or transfers seeded strings or baskets to growing area. Rigs net or star mop (mop of heavy rope yarn) and drags it over bed behind power boat to entangle and remove shellfish predators, such as crabs and starfish. Walks about bed at low tide, and scoops or digs shellfish and piles them onto barge or mud sled, using pitchfork or shovel. Packs shellfish, according to market specifications, in containers and returns small ones to bed. Poles barge to wharf at high tide or pulls it, using boat. Drags mud sled from bed, using tractor. May pour oil around bed and spread oil-treated sand over bed with shovel to form chemical barrier to shellfish predators. May reach from boat with rake-tongs and grope for shellfish by moving handles to open and close tongs. May supervise workers who cultivate and harvest bed. May negotiate with buyers for sale of crop. May be designated according to type of shellfish grown as Clam Grower (fishing & hunt.); Oyster Grower (fishing & hunt.).
GOE: 03.01.02 STRENGTH: M GED: R4 M1 L2 SVP: 6 DLU: 77

446.663-010 SHELLFISH DREDGE OPERATOR (fishing & hunt.) alternate titles: shellfish harvester
Drives and operates mechanical or hydraulic dredge to cultivate, transplant, and harvest marine life, such as oysters, clams, and sea grass: Steers dredge to designated area, using navigational aids, such as compass and landmarks, and knowledge of tides, or is towed by other vessel. Fastens water pressure hoses, lifting and towing cables, and dredge baskets to dredge, using handtools. Primes pumps and adjusts angle of water jets and conveyor, to prepare for dredging. Activates dredge engine and lowers dredge baskets or hydraulic dredger to sea bottom, using hoisting boom and winch. Activates hydraulic dredge impeller pumps and conveyor and drags hydraulic dredger or dredge baskets along sea bottom to scoop or flush shellfish from beds. Inspects contents dumped from dredges onto deck to determine depth of cut into sea bottom, and adjusts water pressure or angle of basket blade to attain depth of cut desired. Observes flow of shellfish on conveyor and stops conveyor to prevent or clear jamming. Observes and listens to operation of equipment to detect malfunction and makes adjustments and minor repairs to correct operational defects. Attaches cutting blades or harrows to dredge and lowers to specified distance above or on sea bottom and steers dredge in diminishing circles to cultivate shellfish beds or cut sea grass. May record date, harvest area, and yield in logbook. May direct helpers in sorting of clams. May be designated according to type of dredge operated as Hydraulic Dredge Operator (fishing & hunt.); Self-Propelled Dredge Operator (fishing & hunt.); or kind of shellfish harvested as Clam Dredge Operator (fishing & hunt.); Oyster Dredge Operator (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

446.684-010 FISH HATCHERY WORKER (fishing & hunt.) alternate titles: fish hatchery assistant; fish hatchery attendant
Performs any combination of following tasks to trap and spawn game fish, incubate eggs, and rear fry in fish hatchery: Secures net on both banks of river to divert fish to holding pond. Catches ripened fish from holding pond with hand net and squeezes or slits bellies of female fish to release eggs in pail. Squeezes bellies of male fish to force milt over eggs, and stirs with rubber-gloved hand to fertilize eggs. Fills hatchery trays with fertilized eggs and places trays in incubation troughs. Turns valves and places baffles in troughs to adjust volume, depth, velocity, and temperature of water. Inspects eggs and picks out dead, infertile, and off-color eggs, using suction syringe. Sorts fish according to size, coloring, and species and transfers fingerlings to rearing ponds or tanks, using buckets or tank truck. Scatters food over surface of water by hand or activates blower that automatically scatters food over water to feed fish. Observes appearance and actions of developing fish to detect diseases, and adds medications to food and water as instructed by superior. Transfers mature fish to rivers and lakes, using tank truck. Records field data and prepares reports of hatchery activities. Drains and cleans ponds and troughs, using brushes, chemicals, and water. Makes minor repairs to hatchery equipment, paints buildings, and maintains grounds. May spawn and rear food fish or tropical and exotic fish for commercial use. May mark migrating fish with liquid nitrogen, using hand-operated branding device.
GOE: 03.04.03 STRENGTH: M GED: R3 M1 L2 SVP: 5 DLU: 77

446.684-014 SHELLFISH-BED WORKER (fishing & hunt.) alternate titles: bed worker
Cultivates and harvests shellfish by performing any combination of following duties: Loads marking stakes on barge, and moves barge to shellfish bed. Drives stakes into mud in pattern specified by SHELLFISH GROWER (fishing & hunt.), using sledgehammer. Sows spat by scattering it within staked enclosure. Covers seeded area with mixture of sand and broken shells of shellfish onto which spat attaches, using shovel. Wades in shellfish bed and digs or rakes for shellfish, using rake, fork, and spade. Treads in water and feels for shellfish with bare feet, gathers shellfish, and drops them into container. Reaches from boat with rake-tongs and gropes for shellfish by moving handles to open and close tongs. Drags brail rod (pipe with series of hooks attached) behind powerboat to pull shellfish from mud. Rigs and lowers dredge into shellfish bed from mast and boom of powerboat, using block and tackle. Hoists dredge and pulls dump ring to empty catch. Picks out market-size shellfish from catch, and replants smaller ones. Packs and ices marketable shellfish in containers for shipment. Unloads loose shellfish from boat, using shovel. May be designated according to type of shellfish bed worked as Clam-Bed Worker (fishing & hunt.); Oyster-Bed Worker (fishing & hunt.); shellfish harvested as Fisher, Clam (fishing & hunt.); Fisher, Oyster (fishing & hunt.); or task performed as Clam Digger (fishing & hunt.); Oyster Unloader (fishing & hunt.). May be designated: Clam Tonger (fishing & hunt.); Clam Treader (fishing & hunt.); Fisher, Mussel (fishing & hunt.); Fisher, Quahog (fishing & hunt.); Fisher, Scallop (fishing & hunt.); Oyster Dredger (fishing & hunt.); Oyster Picker (fishing & hunt.); Oyster Tonger (fishing & hunt.); Oyster Worker (fishing & hunt.); Scallop Dredger (fishing & hunt.); Scallop Raker (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

446.684-018 SOFT CRAB SHEDDER (fishing & hunt.)
Raises soft-shell crabs for food markets by catching crabs from sea and retaining them in tanks until they molt. Catches crabs, using lines [FISHER, LINE (fishing & hunt.)] or pots [FISHER, POT (fishing & hunt.)]. Sorts crabs according to stages of shell development and dumps them into open tanks containing sea water. Starts pumps to aerate water and maintain constant flow of sea water through tanks. Observes crabs to ascertain when they begin to shed their brittle outer shell. Holds shell being shed, when necessary, to assist emerging crab that gets hung in shell during molting. Gathers freshly emerged soft-shell crabs and places them in containers for shipment to market.
GOE: 03.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

446.687-010 CLAM SORTER (fishing & hunt.)
Removes marketable clams from conveyor belt or from pile on deck of clam-harvesting dredge and deposits them in containers. Dumps clams from containers onto worktable or deck, and sorts and packs them in containers for shipping according to species. May assist SHELLFISH DREDGE OPERATOR (fishing & hunt.) in adjustment, repair, and maintenance of dredge and conveyor equipment, using handtools.
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

446.687-014 LABORER, AQUATIC LIFE (fishing & hunt.)
Performs any combination of following tasks related to cultivating, growing, and harvesting or gathering shellfish, finfish, amphibians, and other marine life: Stakes or fences ponds and growing areas following specified pattern to lay out planting bed. Sows spat on sea bottom and covers with sand and shell mixture. Patrols shrimp ponds and *tidal pens* on foot or by motorboat to detect presence of predators. Transfers finfish from tanks to rearing ponds, using dip net. Scatters food over growing area by hand or using blower. Wades in water or drives boat to harvest area. Collects marine life, using gill net, brail, shovel, or tongs. Rigs and lowers dredge baskets, using block and tackle, and raises to empty catch. Picks out marketable marine life and places in container, returning illegal catch to sea. Packs and ices catch for shipment. Unloads catch from boat deck, using conveyor, basket, or shovel. Strings empty oyster shells (used for growing-media) on wire or places in basket. Cleans ponds and tanks, and repairs screens, retaining walls, and fences. Removes debris, seaweed, and predators from water to maintain growing area. May be designated according to type of marine life worked as Clam-Bed Laborer (fishing & hunt.); Fish Hatchery Laborer (fishing & hunt.); Oyster-Bed Laborer (fishing & hunt.); Shrimp Pond Laborer (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

447 SPONGE AND SEAWEED GATHERERS

This group includes occupations concerned with gathering sponge and seaweed by any means not involving the use of underwater breathing equipment.

447.684-010 SPONGE HOOKER (fishing & hunt.) alternate titles: fisher, sponge hooking; hooker
Gathers sponges from sea bottom, using pronged hook attached to end of pole, wading or using boat: Sights sponge, using water glass (bucket or tube with transparent bottom), inserts hook into base of sponge, and pulls hook to tear sponge from its attachment. Lifts hook and removes sponge.
GOE: 03.04.03 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

447.687-010 DULSER (fishing & hunt.)
Gathers dulse from rocks at low tide and spreads it on beach to dry.
GOE: 03.04.03 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

447.687-014 IRISH-MOSS BLEACHER (fishing & hunt.)
Bleaches Irish moss, gathered by IRISH-MOSS GATHERER (fishing & hunt.), by pouring buckets of salt water over moss in tubs. Spreads moss along beach to dry and bleach.
GOE: 03.04.03 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

447.687-018 IRISH-MOSS GATHERER (fishing & hunt.)
Gathers Irish moss from rocks by hand or by use of rake, and hauls it into boat. Transfers moss to beach where it is washed and bleached by IRISH-MOSS BLEACHER (fishing & hunt.).

GOE: 03.04.03 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

447.687-022 KELP CUTTER (fishing & hunt.)
Gathers kelp from sea bottom, using mower (cutter equipped with oscillating knives): Lowers mower into water from kelp-harvesting boat, and starts mower to cut kelp. Attaches grabhook of winch to kelp after kelp is dropped into bow of boat during harvesting so that kelp can be pulled back to keep load evenly distributed as kelp accumulates in boat.
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

447.687-026 SPONGE CLIPPER (fishing & hunt.; wholesale tr.)
Cleans sponges of foreign particles, such as shells and coral fragments, and sorts sponges according to size for packing: Clips torn or irregular parts from sponge, with shears, measures size of sponge with go-not-go gauge, and tosses sponge into specified pile according to size. May cut sponge into specified size, using serrated knife.
GOE: 03.04.03 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

449 FISHERY AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with fishery and related occupations.

449.664-010 NET REPAIRER (fishing & hunt.) alternate titles: rigger; web worker
Assembles and repairs nets on shore and aboard ship: Assembles, ties, and adjusts various webbing material, floats, weights, rings, and ropes to make gill nets, purse seines, *reef nets*, and trawls, using knife and twine-filled bobbin shuttle. Hoists net into ship's rigging to dry after fishing operations, using block and tackle, and repairs holes and tears in webbing. Gives direction to workers engaged in taking down nets. May retrieve lost nets from water. May participate in fishing [FISHER, NET (fishing & hunt.)].
GOE: 05.10.01 STRENGTH: H GED: R3 M1 L2 SVP: 6 DLU: 77

449.667-010 DECKHAND, FISHING VESSEL (fishing & hunt.)
Performs any combination of following duties aboard fishing vessel: Stands lookout, steering, and engine-room watches. Attaches nets, slings, hooks, and other lifting devices to cables, booms, and hoists. Loads equipment and supplies aboard vessel by hand or using hoisting equipment. Signals other workers to move, hoist, and position loads. Rows boats and dinghies and operates skiffs to transport fishers, divers, and sponge hookers and to tow and position nets. Attaches accessories, such as floats, weights, and markers to nets and lines. Pulls and guides nets and lines onto vessel. Removes fish from nets and hooks. Sorts and cleans marine life and returns undesirable and illegal catch to sea. Places catch in containers and stows in hold and covers with salt and ice. Washes deck, conveyors, knives and other equipment, using brush, detergent, and water. Lubricates, adjusts, and makes minor repairs to engines and equipment. Secures and removes vessel's docking lines to and from docks and other vessels. May be designated according to type of vessel worked as Deckhand, Clam Dredge (fishing & hunt.); Deckhand, Crab Boat (fishing & hunt.); Deckhand, Oyster Dredge (fishing & hunt.); Deckhand, Shrimp Boat (fishing & hunt.); Deckhand, Sponge Boat (fishing & hunt.); Deckhand, Tuna Boat (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

449.674-010 AQUARIST (amuse. & rec.) alternate titles: aquarium tank attendant
Attends fish and other aquatic life in aquarium exhibits: Prepares food and feeds fish according to schedule. Cleans tanks and removes algae from tank windows. Attends to aquatic plants and decorations in displays. Collects and compares water samples to color-coded chart for acid analysis and monitors thermometers to ascertain water temperature. Adjusts thermostat and adds chemicals to water to maintain specified water conditions. Observes fish to detect disease and injuries, reports condition to supervisor, and treats fish according to instructions. May fire sedation gun and assist crew expedition members in collection of aquatic life.
GOE: 03.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

449.687-010 OYSTER FLOATER (fishing & hunt.)
Spreads freshly harvested oysters in shallow barge or float so constructed that water flows over oysters to afford temporary oyster storage. Oysters taken from beds exposed to sewage are usually floated in water of specified degree of salinity as designated by health authorities until oysters are free of impurities.
GOE: 03.04.03 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

45 FORESTRY OCCUPATIONS

This division includes occupations concerned with developing, maintaining, cultivating, and protecting forests, forest tracts and woodlands, and harvesting their products. Cultivating ornamental trees, shrubs, and flowers is included in Group 405.

451 TREE FARMING AND RELATED OCCUPATIONS

This group includes occupations concerned with raising tree seedlings for reforestation purposes; and planting, pruning, and harvesting Christmas trees. Planting of tree seedlings in forested areas and woodlands is included in Group 452.

451.137-010 FOREST NURSERY SUPERVISOR (forestry)
Supervises and coordinates activities of workers engaged in planting, cultivating, and harvesting seedling forest trees and grading, bundling, baling, or otherwise packing trees for storage or shipment at forest nursery. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

451.137-014 SUPERVISOR, CHRISTMAS-TREE FARM (forestry) alternate titles: crew boss
Supervises and coordinates activities of workers engaged in planting, shearing, thinning, and harvesting Christmas trees on company-owned or leased land tracts: Tours land tracts to ascertain conditions and estimate work-hour requirements to plant, cultivate, or harvest trees. Confers with management to report conditions of lands and crops, recommend actions to be taken, and obtain instructions regarding variety and number of trees per acre to plant, cultural practices to apply, and harvesting date and location. Trains workers in planting, shearing, or harvesting trees. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

451.687-010 CHRISTMAS-TREE FARM WORKER (forestry)
Plants, cultivates, and harvests evergreen trees on Christmas-tree farm: Removes brush, ferns, and other growth from planting area, using mattock and brush-hook. Plants seedlings, using mattock or dibble [TREE PLANTER (forestry)]. Scatters fertilizer pellets over planted areas by hand. Shears tops and limb tips from trees, using machete and pruning shears, to control growth, increase limb density, and improve shape. Selects trees for cutting according to markings or size, specie, and grade, and fells trees, using ax or chain saw. Drags cut trees from cutting area, and loads trees onto trucks. May be designated according to seasonal task performed.
GOE: 03.04.01 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

451.687-014 CHRISTMAS-TREE GRADER (forestry)
Grades and tags trees in sorting yard of Christmas tree farm: Gauges height of tree, using marked increments on conveyor belt. Turns tree, examines limbs and foliage for color and growth pattern, and determines grade according to standards chart. Staples color-coded grade tags to tree limbs, using hand stapler.
GOE: 03.04.04 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

451.687-018 SEEDLING PULLER (forestry) alternate titles: tree puller
Harvests tree seedlings in forest nursery: Walks along seedling tree rows, stoops, and pulls clumps of seedlings from loosened soil. Knocks clumps together to dislodge soil and loosen roots, and places seedlings in field trays.
GOE: 03.04.02 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

451.687-022 SEEDLING SORTER (forestry) alternate titles: tree sorter
Sorts tree seedlings in forest nursery: Removes seedlings from field trays, separates them, and compares root formation, stem development, and foliage condition with standards chart and verbal instructions. Discards substandard seedlings and places remainder on conveyor for baling.
GOE: 03.04.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

452 FOREST CONSERVATION OCCUPATIONS

This group includes occupations concerned with planting tree seedlings; pruning and thinning trees to improve quality of stand; locating and combating fires, insects, pests, and diseases harmful to trees; and controlling erosion and leaching of forest soil.

452.134-010 SMOKE JUMPER SUPERVISOR (forestry)
Supervises and coordinates activities of airborne fire-fighting crews engaged in extinguishing forest fires: Dispatches crews according to reported size, location, and conditions of fires. Directs loading of fire suppression equipment into aircraft and parachuting of equipment to crews on ground. Maintains aerial observation and radio communication with crews at fire scene to determine equipment and work force requirements, learn of any casualties, and inform crews and base camp of changing conditions. Parachutes to major fire locations and directs suppression activities. Explains and demonstrates parachute jumping, fire suppression, aerial observation, and radio communications to workers. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 04.02.04 STRENGTH: V GED: R3 M2 L3 SVP: 8 DLU: 77

452.167-010 FIRE WARDEN (forestry)
Administers fire prevention programs and enforces governmental fire regulations throughout assigned forest and logging areas: Inspects logging areas and forest tracts for fire hazards, such as accumulated wastes, hazardous storage or mishandling of fuels and solvents, defective engine exhaust systems, and unshielded electrical equipment. Examines and inventories water supplies and firefighting equipment, such as axes, firehoses, pumps, buckets, and chemical fire extinguishers to determine condition, amount, adequacy, and placement of materials with respect to governmental regulations and company rules. Prepares reports of conditions observed, issues directives and instructions for correcting violations, and reinspects areas to verify compliance. Directs maintenance and repair of firefighting tools and equipment and requisitions new equipment and materials to replace expended, lost, and broken items or add to inventory as

required. Restricts public access and recreational use of forest lands during critical fire season. Gives directions to crew section on fireline during forest fire. May direct FIRE RANGERS (forestry).
GOE: 04.01.02 STRENGTH: L GED: R5 M3 L3 SVP: 7 DLU: 77

452.364-010 FORESTER AIDE (forestry) alternate titles: forest technician
Compiles data pertaining to size, content, condition, and other characteristics of forest tracts, under direction of FORESTER (profess. & kin.) 040.061-034; and leads workers in forest propagation, fire prevention and suppression, and facilities maintenance: Traverses forest in designated pattern to gather basic forest data, such as topographical features, species and population of trees, wood units available for harvest, disease and insect damage, tree seedling mortality, and conditions constituting fire danger. Marks trees of specified specie, condition, and size for thinning or logging. Collects and records data from instruments, such as rain gauge, thermometer, stream-flow recorder, and soil moisture gauge. Holds stadia rod, clears survey line, measures distances, records survey data, and performs related duties to assist in surveying property lines, timber sale boundaries, and road and recreation sites. Trains and leads conservation workers in seasonal activities, such as planting tree seedlings, collecting seed cones, suppressing fires, cleaning and maintaining recreational facilities, and clearing fire breaks and access roads. Gives instructions to visitors of forest, and enforces camping, vehicle use, fire building, sanitation, and other forest regulations.
GOE: 03.02.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 82

452.364-014 SMOKE JUMPER (forestry)
Parachutes from airplane into forest inaccessible by ground to suppress forest fires: Jumps from airplane near scene of fire, pulls rip cord when clear of plane, and pulls shroud lines to guide direction of fall toward clear landing area. Orients self in relation to fire, using compass and map, and collects supplies and equipment dropped by parachute. Ascertains best method for attacking fire and communicates plan to airplane or base camp with two-way radio. Fells trees, digs trenches, and extinguishes flames and embers to suppress fire, using ax, chain saw, shovel, and hand or engine-driven water or chemical pumps. May pack parachutes [PARACHUTE RIGGER (air trans.)].
GOE: 04.02.04 STRENGTH: V GED: R3 M2 L2 SVP: 6 DLU: 77

452.367-010 FIRE LOOKOUT (forestry) alternate titles: watcher, lookout tower
Locates and reports forest fires and weather phenomena from remote fire-lookout station: Maintains surveillance from station to detect evidence of fires and observe weather conditions. Locates fires on area map, using azimuth sighter and known landmarks, estimates size and characteristics of fire, and reports findings to base camp by radio or telephone. Observes instruments and reports daily meterological data, such as temperature, relative humidity, wind direction and velocity, and type of cloud formations. Relays messages from base camp, mobile units, and law enforcement and governmental agencies relating to weather forecasts, fire hazard conditions, emergencies, accidents, and location of crews and personnel. Explains state and federal laws, timber company policies, fire hazard conditions, and fire prevention methods to visitors of forest. Maintains records and logbooks.
GOE: 07.04.05 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

452.367-014 FIRE RANGER (forestry)
Patrols assigned area of forest to locate and report fires and hazardous conditions and to ensure compliance with fire regulations by travelers and campers: Hikes or drives to vista points to scan for fires and unusual or dangerous conditions. Reports findings and receives and relays emergency calls, using telephone or two-way radio. Visits camping sites to inspect activities of campers and ensure compliance with forest use and fire regulations. Gives instructions regarding sanitation, fire, and related forest regulations. Extinguishes smaller fires with portable extinguisher, shovel, and ax. Serves as crew leader for larger fires. Renders assistance or first aid to lost or injured persons. Participates in search for lost travelers or campers.
GOE: 04.02.02 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

452.687-010 FOREST WORKER (forestry)
Performs variety of tasks to reforest and protect timber tracts and maintain forest facilities, such as roads and campsites: Plants tree seedlings in specified pattern, using mattock, planting hoe, or dibble. Cuts out diseased, weak, or undesirable trees, and prunes limbs of young trees to deter knot growth, using handsaw, powersaw, and pruning tools. Fells trees, clears brush from fire breaks, and extinguishes flames and embers to suppress forest fires, using chain saw, shovel, and engine-driven or hand pumps. Clears and piles brush, limbs, and other debris from roadsides, fire trails, and camping areas, using ax, mattock, or brush hook. Sprays or injects trees, brush, and weeds with herbicides, using hand or powered sprayers or tree injector tool. Erects signs and fences, using posthole digger, shovel, tamper, or other handtools. Replenishes firewood and other supplies, and cleans kitchens, rest rooms, and campsites or recreational facilities. Holds measuring tape or survey rod, carries and sets stakes, clears brush from sighting line, and performs related tasks to assist forest survey crew.
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

452.687-014 FOREST-FIRE FIGHTER (forestry) alternate titles: fire crew worker; smoke eater
Suppresses forest fires, working alone or as member of crew: Fells trees, cuts and clears brush, digs trenches, and extinguishes flames and embers to contain or suppress fire, using ax, chain saw, shovel, and hand- or engine-driven water pumps. Patrols burned area after fire to watch for hot spots that may restart fire. When leading and directing fire-fighting activities of a crew of workers, may be designated Suppression-Crew Leader (forestry).
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

452.687-018 TREE PLANTER (forestry)
Plants seedling trees to reforest timber lands or Christmas tree farms: Digs planting hole at predetermined spaced interval, using mattock-like tool or dibble. Places seedling in hole and packs soil around plant, using foot or planting tool.
GOE: 03.04.02 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

453 OCCUPATIONS IN HARVESTING FOREST PRODUCTS, EXCEPT LOGGING

This group includes occupations concerned with gathering from forests and woodlands such products as ferns, mistletoe, barks, moss, seed cones, gums, resins, saps, and wild nuts and berries.

453.687-010 FOREST-PRODUCTS GATHERER (agriculture; forestry)
Gathers decorative greens, medicinal plants and barks, tree cones, moss, or other wild plant life from forest by hand or using handtools, such as pruning shears, knife, or shovel. Bundles or sacks products and delivers them to buyer. May climb trees to reach cones and boughs, using climbing belt and climbing spurs. May sort gathered plant life by size or species. May be designated according to product gathered as Cascara-Bark Cutter (forestry); Decorative Greens Cutter (forestry); Medicinal-Plant Picker (agriculture); Moss Picker (agriculture); Seed-Cone Picker (forestry).
GOE: 03.04.02 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

453.687-014 LABORER, TREE TAPPING (agriculture; forestry)
Performs any combination of following tasks to collect sugar, oleoresin, or other tree sap: Cuts or bores tap in face of tree, using auger, ax, hack (hook-shaped tool) or other handtool. Inserts spout or trough into tap and hangs or nails receptacle under tap. Dumps filled receptacles into collection barrel, tank, or similar container and transports to central collection point. May gather scrape (hardened gum) at end of season, using hand scraper. May rake leaves and other debris to clear trees for tapping and lessen fire hazard.
GOE: 03.04.02 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

454 LOGGING AND RELATED OCCUPATIONS

This group includes occupations concerned with felling trees and cutting them into logs or products such as cordwood, shakes, firewood, and posts, using chain saws, axes, wedges, and related tools. Occupations in cutting Christmas trees are included in Group 451. Occupations in yarding and loading logs by machine are included in Division 92.

454.134-010 SUPERVISOR, FELLING-BUCKING (logging) alternate titles: powersaw supervisor; saw boss; timber supervisor
Supervises and coordinates activities of workers engaged in felling trees, trimming off limbs, and sawing felled trees into logs: Specifies log lengths to be cut, trees to be left, stump height, and cutting sequence. Trains workers in felling and bucking techniques and safety practices. Gives instructions to workers in felling trees with unusual or dangerous characteristics. May supervise TREE-SHEAR OPERATORS (logging). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.04.02 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

454.384-010 FALLER I (logging) alternate titles: chopper
Fells timber trees, applying knowledge of tree characteristics and cutting techniques to control direction of fall and minimize tree damage: Appraises tree for characteristics, such as twists, rot, and heavy limb growth, and gauges amount and direction of lean, using ax as plumb bob. Determines position, direction, and depth of cuts to be made and placement of wedges or jacks. Clears brush and debris from work area and escape route, and cuts saplings and other trees from falling path, using ax and chain saw. Scores cutting lines with ax, saws undercut along scored lines with chain saw, and knocks slabs from cuts with ax. Saws back-cuts, leaving sufficient sound wood to control direction of fall. Inserts jack or drives wedges behind saw to prevent binding of saw and start tree falling. Stops saw engine as tree tips, pulls cutting bar from cut, and runs to predetermined location to avoid injury from falling limbs and flying debris. May work on piecework basis and be designated Busheler (logging). May cut trees into log lengths [BUCKER (logging)]. Fallers of small timber (generally under 18 inches in diameter) are classified as FALLER (logging) II.
GOE: 03.04.02 STRENGTH: H GED: R3 M1 L2 SVP: 6 DLU: 77

454.683-010 TREE-SHEAR OPERATOR (logging) alternate titles: feller operator
Drives and operates logging tractor equipped with frontal hydraulic shear to fell trees: Maneuvers tractor to position jaws of shear around tree bole, and activates shear to cut and fell tree. May control hydraulic tree clamp and boom to lift, swing, and bunch sheared trees and be designated Feller-Buncher Operator (logging).
GOE: 03.04.02 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

454.684-010 BUCKER (logging)
Saws felled trees into lengths: Places supporting limbs or poles under felled tree to avoid splitting underside and to prevent log from rolling. Cuts pre-

viously marked tree into logs, using power chain saw and ax. Drives wedges into cut behind saw blade to prevent binding saw. May cut limbs from felled trees. May mark felled tree for cutting into log lengths to obtain maximum value [LOG MARKER (logging)].
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

454.684-014 FALLER II (logging) alternate titles: stumper-feller
Fells trees, applying specified cutting procedures to control direction of fall: Clears brush from work area and escape route, and cuts saplings and other trees from falling path, using ax and chain saw. Saws or chops undercut in bole of tree to fix designated direction of fall, using chain saw and ax, and saws opposite side (back cut) to fell tree. Drives wedges behind saw with mall to tip tree and prevent binding of saw. May cut limbs from tree. May cut tree into log lengths. May tag trees in unsafe condition with high visibility ribbon. Workers are classified as FALLER (logging) I where adherence to standards of minimum tree damage are of prime importance and considerable judgment is exercised in determining cutting techniques.
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

454.684-018 LOGGER, ALL-ROUND (logging)
Harvests timber trees, performing combination of following tasks: Fells trees in specified direction, removes limbs and top, and measures and cuts tree into log lengths, using chain saw, wedges, and ax. Secures cables to logs and drives tractor or horses to skid logs to landing. Loads logs onto trucks by hand or using winch. May drive truck to haul logs to mill.
GOE: 03.04.02 STRENGTH: H GED: R2 M2 L1 SVP: 4 DLU: 78

454.684-022 RIVER (logging)
Rives (splits) logs or wooden blocks into bolts, pickets, posts, shakes, or stakes, using handtools, such as ax wedges, sledgehammer, froe, and mallet: Drives wedge into log with ax and sledgehammer to split log along grain to form posts or bolts. Positions froe on block according to grain and thickness of specified product and pounds it into block with mallet to start cut. Pulls froe handle up or down to pry and split pieces from block. May fell trees, using chain saw [FALLER (logging) II] and cut logs into desired lengths [BUCKER (logging)]. May be designated according to product cut as Rail Splitter (logging); Shake Splitter (logging); Shingle-Bolt Cutter (logging); Stave-Block Splitter (logging).
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

454.684-026 TREE CUTTER (agriculture; logging)
Fells trees of specified size and specie, trims limbs from tree, and cuts tree into lengths for firewood, fence posts, or pulpwood, using ax, measuring tool and chain saw. Splits logs, using ax, wedges, and maul. May stack wood in rick or cord lots. May load wood onto trucks. May be designated Fence-Post Cutter (agriculture); Firewood Cutter (logging); Pulpwood Cutter (logging).
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

454.687-010 CHAIN SAW OPERATOR (chemical; logging; millwork-plywood)
Trims limbs, tops, and roots from trees, and saws logs to predetermined lengths, using chain saw, preparatory to removal from forest or processing into wood products. May measure and mark logs for sawing. May be designated according to activity performed as LIMBER (logging). For related classifications involving judgment in determining cutting techniques, see BUCKER (logging); FALLER (logging) II; and TREE CUTTER (agriculture; logging).
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

454.687-014 LABORER, TANBARK (logging) alternate titles: tanbark peeler
Harvests tanbark, performing any combination of following tasks: Cuts limbs from felled trees, using chain saw or ax. Cuts rings and slits in bark, and strips bark from tree, using spud or ax. Stacks bark in ricks (piles), bark-side down.
GOE: 03.04.02 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

454.687-018 LOG MARKER (logging; millwork-plywood)
Measures and marks logs or felled trees for cutting into sawlogs, pulpwood, or *veneer blocks:* Inspects felled tree or log to determine waste. Marks cutting locations to obtain maximum yield of standard lengths, using measuring rod or tape and marking chalk or crayon. May record log dimensions.
GOE: 05.07.06 STRENGTH: M GED: R3 M2 L1 SVP: 3 DLU: 77

455 LOG GRADING, SCALING, SORTING, RAFTING, AND RELATED OCCUPATIONS

This group includes occupations concerned with determining the volume and condition of logs; and segregating, rafting, or similarly preparing them for storage or shipment.

455.134-010 SUPERVISOR, LOG SORTING (logging; millwork-plywood)
Supervises and coordinates activities of workers engaged in unloading, scaling, grading, and sorting logs in log boom or sorting yard: Designates storage location for each category of log grade, specie, and size. Oversees scaling and grading activities to verify adherence to industry or company standards. Trains workers in log scaling, grading, and marking standards. Coordinates selection and movement of logs from storage areas according to transportation schedules or production requirements of wood products plants. May supervise raft building and loading of trucks and railcars for log shipment. Performs duties as described under SUPERVISOR (any industry) Master Title. May supervise sorting activities in log boom and be designated Boom Supervisor (logging).
GOE: 03.04.02 STRENGTH: L GED: R3 M2 L3 SVP: 7 DLU: 77

455.367-010 LOG GRADER (logging; saw. & plan.)
Grades logs in sorting yard, millpond, or log deck according to industry or company standards: Measures diameter and length of log, using scale stick, steel tape, or other measuring aid, and determines total volume, using conversion table [LOG SCALER (logging; millwork-plywood; paper & pulp; saw. & plan.)]. Jabs log with metal end of scale stick and inspects log to ascertain conditions or defects, such as sound or water-soaked wood, splits, broken ends, rotten areas, twists, and curves. Evaluates log's characteristics and determines grade according to established criteria. Paints identification mark of specified color on log to identify grade and species, using paint spray can, or calls out grade to LOG MARKER (logging). Estimates and deducts volume of waste wood from total volume, and records volume by grade in tally book.
GOE: 05.07.06 STRENGTH: L GED: R3 M3 L2 SVP: 6 DLU: 77

455.487-010 LOG SCALER (logging; millwork-plywood; paper & pulp; saw. & plan.)
Estimates marketable content of logs or pulpwood: Measures dimensions of each log or entire loads of pulpwood, using scale stick, tape measure, or other measuring device. Determines total board feet, cordage, or other wood unit, using conversion table. Inspects logs or pulpwood for rot, knots, and other defects, deducts estimated waste from total volume, and records results. May identify logs of substandard or special grade for return to shipper or transfer to other processes. May weigh log trucks before and after unloading, and record weight data and supplier. May tend conveyor chain that moves logs to and from scaling station. May be designated according to work location as Deck Scaler (saw. & plan.); Landing Scaler (logging); Pond Scaler (paper & pulp; saw. & plan.); or item scaled as Pulpwood Scaler (paper & pulp).
GOE: 05.07.06 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 79

455.664-010 RAFTER (logging)
Assembles floating logs into rafts for towing to mill: Bores holes in boom sticks (side poles of raft), and swifters (cross poles or ribs) with power-driven auger, and threads chain or cable through holes to form raft frame. Signals LOG SORTER (logging) to push logs between frame members and maneuvers them into position with pike pole, or signals boat operator to push log bundles into raft. Binds logs into rafts with chain or cable and fastens binder with cable clamp or clevis. May unload logs from railroad cars and log trucks.
GOE: 03.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

455.684-010 LOG SORTER (logging)
Sorts logs in boom according to species, size, and owners' markings: Separates logs, floats them into designated bays with pike pole, and closes bay with chain or cable. Opens bay and maneuvers logs into designated rafting or mill storage area. May unload logs from railroad cars and log trucks. May operate motorboat to move logs. May assemble log rafts [RAFTER (logging)]. May brand logs with owners' markings [LOG MARKER (logging)].
GOE: 03.04.02 STRENGTH: H GED: R3 M1 L1 SVP: 3 DLU: 77

455.687-010 LOG MARKER (logging) alternate titles: marker
Marks logs in river or pond to designate ownership, cutting origin, species, or intended use, using any of following methods: (1) Brands each end of log with hammer or ax having raised characters on head. (2) Paints mark on ends of log, using spray can. (3) Chops or saws mark in bark near end of log.
GOE: 03.04.02 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

459 FORESTRY OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with forestry and harvesting forest products.

459.133-010 SUPERVISOR, LOGGING (logging) alternate titles: yarding supervisor
Supervises and coordinates activities of workers engaged in felling and bucking trees, skidding logs from forest, and loading logs on trucks: Trains workers in felling and bucking trees, operation of tractors and loading machines, yarding and loading techniques, and safety regulations. Performs duties as described under SUPERVISOR (any industry) Master Title. When logging activities are confined to one side of timber stand or tract, may be designated Side Boss (logging).
GOE: 03.02.02 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

459.137-010 WOODS BOSS (logging) alternate titles: woods overseer
Supervises and coordinates activities of workers engaged in pulling, blasting, chopping, and transporting stumps, used in destructive distillation process for obtaining crude turpentine. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 03.02.02 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

459.387-010 CRUISER (forestry; logging) alternate titles: timber cruiser
Cruises forest land to estimate volume of marketable timber and collect data concerning forest conditions for appraisal, sales, administration, logging, land use, and forest management planning: Traverses forest area on foot in established pattern and applies sampling technique. Sights over scale stick to estimate height and diameter of each tree in sample. Estimates loss of marketable

volume due to defects, such as rot and bends in tree, and computes quantity of useable wood in each tree. Logs cruise data and prepares summary report of timber types, sizes, condition, and outstanding features of area, such as existing roads, streams, lakes, and communication facilities. May mark trees with spray paint to denote trail, boundary, or for cutting. May be designated Chief Cruiser (forestry) when leading a crew.
GOE: 03.02.02 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

459.687-010 LABORER, BRUSH CLEARING (any industry) alternate titles: brusher; swamper
Cuts trees, brush, and other growth, using chain saw, ax, brush-hook, and other handtools to clear land for construction, forestry, logging or agriculture activities, to remove infestation, or to control growth along utility, highway, or railroad right-of-way. May pile brush for burning or load onto trucks. May feed brush into shredding or chipping machine.
GOE: 03.04.02 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

46 HUNTING, TRAPPING, AND RELATED OCCUPATIONS

This division includes occupations concerned with searching for and taking, dead or alive, wild birds and animals, including seal, walrus, otter, and whales.

461 HUNTING AND TRAPPING OCCUPATIONS

This group includes occupations concerned with taking wild or pest animals and birds, dead or alive, by means of weapons, poisons, nets, and traps.

461.134-010 EXPEDITION SUPERVISOR (fishing & hunt.)
Supervises and coordinates activities of workers engaged in hunting for and capturing sea mammals for research and display: Confers with management to ascertain kind and number of animals to be captured, time and location of hunt, and mode of travel. Determines personnel, food, equipment and other supply requirements for hunt and capture of animals. Inspects equipment for adequacy and condition. Arranges for repair services and requisitions needed supplies. Maintains and repairs, or supervises maintenance and repair of equipment. Assigns workers to activities, such as mending nets and attaching floats and packing and loading food and material in carrier. Scouts ocean beaches and rookeries and stands watch on boat to locate mammals. Coordinates activities, such as catching mammals, on-site container construction, and in-transit mammal care. Performs other duties described under SUPERVISOR (any industry) Master Title.
GOE: 03.04.03 STRENGTH: V GED: R4 M2 L3 SVP: 6 DLU: 77

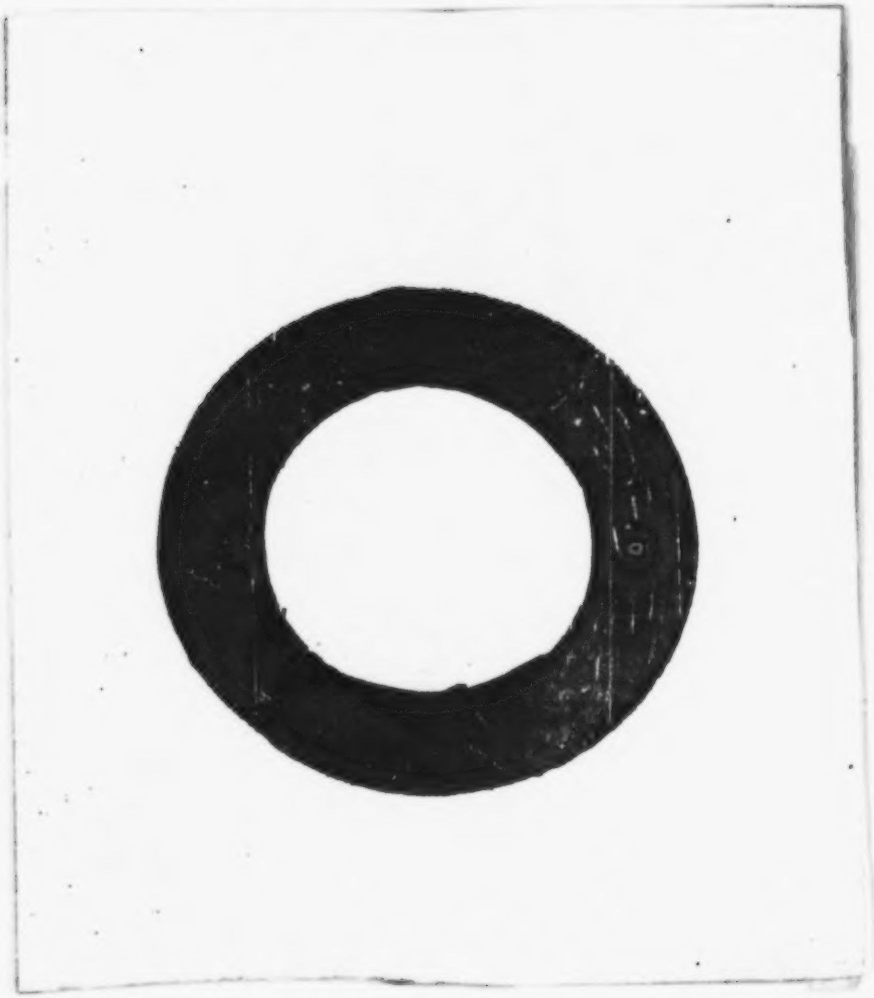
461.661-010 PREDATORY-ANIMAL HUNTER (fishing & hunt.) alternate titles: bounty hunter; forestry hunter
Hunts, traps, and kills predatory animals to collect bounty: Hunts quarry, using dogs, and shoots animals. Traps or poisons animals depending on environs and habits of animals sought. Removes designated parts, such as ears or tail from slain animals, using knife, to present as evidence of kill for bounty. May skin animals and treat pelts for marketing. May train dogs for hunting. May be designated according to animal hunted as Cougar Hunter (fishing & hunt.); Coyote Hunter (fishing & hunt.); Wolf Hunter (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R3 M1 L1 SVP: 5 DLU: 77

461.664-010 UNDERWATER HUNTER-TRAPPER (fishing & hunt.) alternate titles: hunter, skin diver
Collects and captures sea life specimens, such as finfish, shellfish, and mammals working individually or as member of crew, using skin-diving equipment: Dives or walks into sea and swims underwater to scout terrain and reach work area. Twists, cuts, and tears specimens, *such as abalone, starfish, or sponge* from surface to which attached, and places specimens in container. Catches finfish and shellfish, using net. Signals boat crew to hoist container or net to surface. Places nets underwater to capture sea mammals, such as whales, porpoises, and dolphins. Stands watch to observe behavior of captured mammals. Swims in, around, and under nets to free captive and other quarry caught in net and to prevent injury, escape, or drowning. Restrains mammal with arms or nets, and rigs net or sling under catch to permit hoisting without bodily injury.
GOE: 03.04.03 STRENGTH: V GED: R3 M2 L3 SVP: 5 DLU: 77

461.684-010 SEALER (fishing & hunt.) alternate titles: fisher, seal
Kills seals for pelts, using clubs: Rounds up droves of bachelor seals resting or sleeping on beach adjacent to, but distinct from, rookery, using pole to prod them and keep them together. Drives male seals inland to killing grounds, and sorts droves into pods. Kills male seals that are within specified age and size limits, by striking them on head with club, after allowing others to escape. Severs skin around head and flippers of dead seal, using knife, pins its skull to ground with metal bar, and pulls off seal's skin from head to tail. Loads pelts onto trucks for transportation to plant for cleaning and curing. Washes pelts in sea water. Scrapes fat and blubber from pelts, using hand scraper. Cures pelts in salt or brine, sprinkles boric acid on skin side of pelt to prevent bacterial development, and packs and salts pelts in barrels for shipment and further processing. May be designated according to specific task performed as Seal Driver (fishing & hunt.); Seal Killer (fishing & hunt.); Seal Skinner (fishing & hunt.). Sealing operations are controlled by the United States Fish and Wildlife Service.
GOE: 03.04.03 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

461.684-014 TRAPPER, ANIMAL (fishing & hunt.) alternate titles: fur trapper
Traps animals for pelts, live sale, bounty, or to relocate them in other areas. Sets traps with bait, scent, or camouflage, and in patterns according to size, species, habits, and environs of animal sought or according to reason for trapping. Patrols trapline to remove catch and reset or relocate traps. Clubs or drowns trapped fur-bearing animals to prevent damage to pelts. Skins animals, using knife, and stretches pelts on frames to be cured. Scrapes or skives skin-side of pelt with knife to remove fat and flesh, and rubs skin with salt to dry and preserve it. Sorts pelts according to species, color, and quality. Removes parts, such as ears or tail, from predatory animals and presents them as evidence of kill for bounty [PREDATORY-ANIMAL HUNTER (fishing & hunt.)]. May be designated according to animal trapped as Beaver Trapper (fishing & hunt.); Muskrat Trapper (fishing & hunt.).
GOE: 03.04.03 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

461.684-018 TRAPPER, BIRD (fishing & hunt.)
Traps birds to serve as brood stock, or for exhibition, extermination, identification, or relocation: Selects and sets traps, nets, or cages according to size, habits, and habitat of bird and reasons for trapping. Walks about area to drive quarry toward traps or net or patrols trap-line periodically to inspect setting. Releases quarry from trap or net and transfers it to cage. Kills birds or secures identification tag to bird and releases it. May locate and flush ground birds into nets, using dogs.
GOE: 03.04.03 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77



5 PROCESSING OCCUPATIONS

This category includes occupations concerned with refining, mixing, compounding, chemically treating, heat treating, or similarly working materials and products. Knowledge of a process and adherence to formulas or other specifications are required in some degree. Vats, stills, ovens, furnaces, mixing machines, crushers, grinders, and related equipment or machines are usually involved.

50 OCCUPATIONS IN PROCESSING OF METAL

This division includes occupations concerned with molding, casting, coating, conditioning, or otherwise processing metal. Foundry occupations are included in Division 51.

500 ELECTROPLATING OCCUPATIONS

This group includes occupations concerned with covering the surfaces of objects by electro-deposition or electrolysis.

500.131-010 SUPERVISOR (electroplating) alternate titles: plater supervisor

Supervises and coordinates activities of workers engaged in cleaning, racking, plating, and polishing of metal or plastic objects: Selects equipment, such as hooks, plating barrels or tanks, and racks, according to quantity, size, and type of objects to be plated. Verifies types of plating metals and solutions, length of immersion period, and amount of electric current flowing through solutions, following plating specifications. Assigns tasks to workers and processes paperwork, such as timecards and supply, production and personnel reports. Resolves personnel problems and expedites production bottlenecks to meet deadlines and production schedules. Inspects plated surfaces of objects to detect defects, such as rough spots, thin plating, and unpolished areas. Collects and labels samples of plating solutions for laboratory analysis. Examines equipment, such as plating tanks, polishers, and racks, and notifies maintenance department of needed repairs. May analyze plating solutions to verify conformance to specifications, performing variety of tests, such as specific gravity and titration tests. May measure thickness of plating on metal objects, using micrometer, to verify conformance to specifications. May be designated according to specific process supervised as Supervisor, Anodizing (electroplating); Supervisor, Electrolytic Tinning (nonfer. metal). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

500.132-010 SUPERVISOR, SHEET MANUFACTURING (smelt. & refin.)

Supervises and coordinates activities of workers engaged in making copper tarting sheets by electrolysis. Performs duties as described under SUPERVISOR (any industry) Master Title.
OE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

00.134-010 SUPERVISOR, MATRIX (recording)

Supervises and coordinates activities of workers engaged in electroplating, tripping, finishing, and inspecting metal phonograph record matrices. Req- isitions processing materials, such as chemicals, wiping cloths, and polishing ompounds. Confers with workers' representatives to resolve grievances. Trains orkers in processing functions. Performs duties as described under SUPERVISOR (any industry) Master Title.
OE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

00.287-010 INSPECTOR, PLATING (electroplating) alternate titles: sample tester

Inspects plated surfaces of metal or plastic objects visually or using chemical r electrical tests: Examines part for defects, such as uneven coating or scratch- s. Applies chemicals to or immerses object in test solution and observes reac- on or measures dissolving time. Turns on electrical current and reads gauge o measure plating thickness. Attaches magnet to metal part and reads gauge o measure magnet pull to determine plating thickness. Compares readings with pecifications and returns defective objects for rework. May test samples of lectrolytic solutions.
OE: 06.03.01 STRENGTH: M GED: R3 M3 L3 SVP: 3 DLU: 77

00.362-010 ELECTROGALVANIZING-MACHINE OPERATOR (electroplating)

Sets up and operates continuous multistrand electrogalvanizing and heat-treat- g machine to coat steel strip or wire with zinc, according to written specifica- ons: Mixes chemical solutions, using formulas. Fills cleaning, pickling, gal- anizing, and waxing tanks. Charges furnace with gas or coal to prepare for alvanizing process. Inserts wire reels and feeds wire into machine. Moves con- ols on rheostats and generators to regulate movement of wire strand between els, plating tanks, and coils, to obtain specified thickness of coating. Adjusts ntrols to regulate temperature of leadpot, cleaners, picklers, and plating tanks. erforms chemical solution tests, such as titration tests, wire hardness tests, dip ating tests, and welding tests, to determine conformance to specifications. Re- djusts controls based on findings. Records test results. Examines coating, ashing, and alignment of wire strands visually and using micrometers to compare finished strands with specifications. Resets and changes combs when changing width and number of strands. Replaces anodes and recharges leadpot at specified intervals.
GOE: 06.02.21 STRENGTH: H GED: R4 M3 L3 SVP: 6 DLU: 77

500.362-014 PLATER, BARREL (electroplating) alternate titles: barrel-line operator; drum plater; plater, machine; tumbler plater

Operates barrel plating equipment to coat metal objects electrolytically with metal to build up, protect, or decorate surfaces: Places metal objects in mesh container and immerses objects in cleaning solutions. Places objects in perforated or mesh barrel of plating equipment and clamps door in barrel opening. Turns handle to lower barrel into plating solution and to close electrical contacts. Starts rotation of barrel. Starts flow of electric current through plating solution that decomposes plating metal at anode and deposits metal coating on objects in barrel. Stops flow of current after specified time and removes objects. Places objects in mesh container and immerses objects in rinsing solutions. Dries plated objects, using centrifugal drier or tumbler filled with sawdust. Tests solutions, using hydrometer, and adds chemicals to maintain specified concentrations.
GOE: 06.02.21 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

500.380-010 PLATER (electroplating) alternate titles: electroplater; plating-tank operator

Sets up and controls plating equipment to coat metal objects electrolytically with chromium, copper, cadmium, or other metal to provide protective or decorative surfaces or to build up worn surfaces according to specifications: Reads work order to determine size and composition of object to be plated; type concentration and temperature of plating solution; type and thickness and location of specified plating metal; and amount of electrical current and time required to complete plating process. Immerses object in cleaning and rinsing baths [METAL-CLEANER, IMMERSION (any industry)]. Suspends object, such as part or mold, from cathode rod (negative terminal) and immerses object in plating solution. Suspends stick or piece of plating metal from anode (positive terminal) and immerses metal in plating solution. Moves controls on rectifier to adjust flow of current through plating solution from anode to cathode and to permit electrodeposition of metal on object. Removes plated object from solution at periodic intervals and observes object to ensure conformance to specifications. Adjusts voltage and amperage based on observation. Examines object visually at end of process to determine thickness of metal deposit or measures thickness, using instruments, such micrometers or calipers. Grinds, polishes or rinses object in water and dries object to maintain clean even surface. May mix, and test strength of plating solution, using instruments and chemical tests. May measure, mark, and mask areas excluded from plating. May plate small objects, such as nuts or bolts, using motor-driven barrel. May direct other workers performing variety of duties, such as racking, cleaning, or plating objects. May operate electroplating equipment with reverse polarity and be known as Plating Stripper (electroplating). May be designated according to plating materials used as Brass Plater (electroplating); Bronze Plater (electroplating); Cadmium Plater (electroplating); Chromium Plater (electroplating); Copper Plater (electroplating); Gold Plater (electroplating). May be designated: Nickel Plater (electroplating); Plastics Plater (plastic prod.); Silver Plater (electroplating); Tin Plater (electroplating).
GOE: 06.02.21 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

500.380-014 PLATER APPRENTICE (electroplating) alternate titles: electroplater apprentice; plating-tank-operator apprentice

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.02.21 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

500.381-010 CYLINDER GRINDER (print. & pub.) alternate titles: grinder and plater

Electroplates rotogravure printing cylinders with coating of copper and grinds plates to specifications, using grinding machines: Immerses cylinder in cleaning bath, using chain hoist. Removes cylinder and places cylinder in copper sulfate plating solution for prescribed period of time to cover cylinder with copper [PLATER (electroplating)]. Removes cylinder from plating vat, rinses in water, and fastens cylinder between centers of grinding machine, using handtools. Selects and fastens abrasive wheel onto spindle of machine. Starts machine and turns handwheels to bring abrasive wheel into contact with surface of cylinder, and to engage automatic feed. Measures dimension of cylinder surfaces during grinding and polishing operation, using micrometers to obtain required precision. Removes finished cylinder from machine and places cylinder in rack.
GOE: 05.10.05 STRENGTH: L GED: R3 M3 L3 SVP: 7 DLU: 77

500.384-010 MATRIX PLATER (recording)

Electroplates phonograph record matrices to form metal replicas of positive and negative recorded surfaces, and to form stamper used in pressing phono-

graph records: Inserts silver-coated lacquer disk (original recording) in rubber masking ring to prevent plating of specified surfaces, such as edges of disk. Hangs disk in tanks containing plating solutions, such as nickel and copper or inserts disk over centering pin of automatic plating tanks to form negative metal master matrix of disk. Observes dials and gauges to ensure solutions and electric current flowing through solutions conform to specifications, and adjusts controls as required. Removes plated disk from tanks after specified time, removes masking ring, washes and dries disk, and routes disk to finishing department for stripping and finishing process by MATRIX WORKER (recording). Washes master matrix after finishing process to prevent adhesion during subsequent plating processes. Plates master matrix to form *mother* matrix and plates mother to form stamper used on record presses, following prescribed plating procedures. May prepare and test plating solutions.
GOE: 06.02.21 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

500.384-014 MATRIX-BATH ATTENDANT (recording)
Maintains electrolytic baths in operating condition for plating phonograph record matrices: Draws sample of solution from tanks, using pipette. Tests strength of solution, using hydrometer, and adds specified amounts of metallic salts, acid, or water to solution as needed. Examines anodes for specified size and for position in baths. Activates controls and reads meters to test electrical connections for open or short condition.
GOE: 06.02.21 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

500.485-010 ZINC-PLATING-MACHINE OPERATOR (electroplating)
Tends machine that coats wire electrolytically with zinc to protect wire surface from corrosion: Mixes zinc solution according to specified formula and turns valves to fill tank with solution. Threads wire through machine and sets rheostat to regulate flow of current through solution. Starts machine to pull wire through solution. Examines surface of wire for defects, such as bubbles or bare spots, and measures thickness of coating, using micrometer. Adjusts controls to regulate speed of reel and flow of current to coat wire to specified thickness.
GOE: 06.02.21 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

500.682-010 ANODIZER (any industry) alternate titles: white-metal corrosion proofer
Controls anodizing equipment to provide corrosion resistant surface to aluminum objects: Selects holding rack according to size, shape, and number of objects to be anodized. Wires or clips objects to anodizing rack and immerses rack in series of cleaning, etching, and rinsing baths. Positions objects in anodizing tank by suspending them from anode. Estimates amount of electric current and time required to anodize material. Turns rheostat to regulate flow of current. Removes objects from tank after specified time, rinses objects, and immerses them in bath of hot water or dichromate solution to seal oxide coating. Hangs objects on racks to air-dry. May immerse objects in dye bath to color them for decorative or identification purposes. May anodize workpiece with corrosion resistant material, using automated equipment that automatically cleans, rinses, and coats.
GOE: 06.02.21 STRENGTH: H GED: R3 M2 L3 SVP: 4 DLU: 77

500.684-010 ELECTROFORMER (electroplating)
Sprays or smears electrically conductive solution onto nonconductive objects, such as baby shoes or plastic molds, or dips objects in solution to prepare objects for electroplating. May electroplate objects [PLATER (electroplating)].
GOE: 06.04.33 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

500.684-014 MATRIX WORKER (recording) alternate titles: finisher
Performs any combination of following tasks involved in finishing and inspecting metal phonograph matrices after electroplating processes: Strips (separates) master, *mother*, and stamper matrices, using handtools, files, and knife. Holds matrices against sanding belt or grinding wheel of bench grinder to remove burrs. Punches center hole in stamper and mother matrices, using punch press. Fills offcenter holes with solder, using soldering iron or acetylene torch. Steam cleans and polishes matrices, using brushes, cloths, and polishing compounds. Examines stamper matrices for defects, and weighs matrices to ensure conformance to standards, using scale. Cuts and flares edges of stamper matrices, using press. Marks identifying information on master matrices, using scribe.
GOE: 06.04.24 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

500.684-018 PLATE FORMER (elec. equip.)
Forms (treats) storage battery plates for dry charge or wet charge batteries: Positions plates on conductor base of forming tank and burns lead strips to lugs of plates [LEAD BURNER (elec. equip.)]. Inserts separators between positive and negative plates to form element. Places elements in containers and attaches push-on or clamp-type jumpers to connect elements in series. Mixes forming acid solution of prescribed specific gravity. Drains solution from mixing tank into forming tanks or element containers, using hose. Connects posts of units to electrical circuit. Adjusts rheostat to regulate current, using ammeter. Removes formed plates from acid and places plates in water bath to remove electrolyte. Separates positive and negative plates, places plates in racks, and places racks in driers. Dumps forming acid from element containers and refills containers with finishing acid. Conveys or trucks elements to final charging line.
GOE: 06.02.32 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

500.684-022 SILVER SPRAY WORKER (recording)
Sprays surfaces of prerecorded lacquer disks with silver solution to make disks conductive, using spray gun: Positions disk on spindle of turntable in spraying booth. Sprays revolving disk with cleaning solvents to prepare dis for silver coating. Sprays silver solution on revolving surface of disk. Ma place disk in spray machine that automatically cleans and sprays surface wit silver solution.
GOE: 06.04.33 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

500.684-026 PLATER, PRINTED CIRCUIT BOARD PANELS (electron comp.)
Electroplates printed circuit board (PCB) panels with metals, such as copper tin, gold, nickel, or solder, to resist corrosion, improve electrical conductivity and facilitate solder connections: Dips panels in cleaning solutions or wipe panels with cloth to clean panels. Clamps panels or rack of panels to overhea bar above tanks to complete electrolytic current. Immerses panels in plating solution. Sets timer for specified plating time and turns on electrical current. Observes meter and turns dial to maintain specified current in plating solution. Removes plated panels and immerses panels in rinsing tank. Examines plated panels for defects. May test thickness of plating, using gauge or test equipment May tape areas to be excluded from plating, using tape machine. May trim excess material from PCB panels, using shearing machine. May calculate amperage setting, following specified formula. May be designated according to plating material used as Gold Plater (electron. comp.); Nickel Plater (electron comp.).
GOE: 06.02.21 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 86

500.684-030 PLATER, SEMICONDUCTOR WAFERS AND COMPONENTS (electron. comp.)
Electroplates semiconductor wafers and electronic components, such as copper leads and rectifiers, with metals, such as gold, silver, and lead: Reads processing sheet to determine plating time and specifications. Places components o wafers in basket or fixture, using tweezers, and immerses components or wafer in chemical solution baths for specified time to clean and plate components o wafers. May measure thickness of photoresist and metal on wafer surface, using micrometer, and test electrical circuitry of individual *die* on wafer, using tes probe equipment. May measure anode width on wafer surface, using microscope measuring equipment.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 86

500.684-034 PLATER (inst. & app.) alternate titles: electroformer
Plates component parts, such as micromesh screen patterns and electronic tubes, used in medical and laboratory measuring and controlling instruments using electrolytic plating tank: Positions screen pattern or component part i frame or on rack, and hangs frame or rack in plating tank. Sets switch for specified plating time, and activates electric current to deposit ionized metal o nonprinted area of screen pattern or component part. Immerses electroformed part in water to rinse off electrolyte, and immerses rinsed part in solvent t dissolve pattern. May measure thickness of electroplating on component part t verify conformance to specifications, using micrometer.
GOE: 06.02.32 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 89

500.685-010 ETCHER, ELECTROLYTIC (cutlery-hrdwr.) alternate titles: etcher
Tends equipment that electrolytically etches markings, such as insignias trademarks, and part numbers on metal articles: Turns switches on power control unit to allow flow of electric current through electrolytic solution in tank Positions workpiece on stencil and against contact strip to complete electric circuit. Places workpiece in electrolytic solution that etches stencil markings on metal. Removes workpiece from solution, after specified time, and sprays workpiece with water to remove acid. Immerses workpiece in rust preventive solution.
GOE: 06.04.10 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

500.685-014 PLATING EQUIPMENT TENDER (electroplating) alternate titles: electroplater, automatic; plater production
Tends automatic equipment that conveys objects through series of cleaning, rinsing, and electrolytic plating solutions to plate objects with metallic coating: Starts equipment and regulates flow of electricity through plating solution and immersion time of objects in solutions, according to specifications. Monitors automatic plating process to ensure conformance to standards. Adds water or other materials to maintain specified mixture and level of cleaning, rinsing, and plating solutions. Observes temperature gauges and adjusts controls to maintain specified temperatures of cleaning and rinsing solutions. Lubricates moving parts of plating conveyor. Cleans plating and cleaning tanks. May test plating solution, using hydrometer and litmus paper, or obtain random sample of plating solutions for laboratory analysis. May replace anodes and cathodes in plating equipment. May fasten objects onto hooks or racks, or place objects into containers or onto conveyor attached to plating equipment. May start and monitor computerized plating process. May manually immerse objects into plating or rinsing solutions.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 88

500.686-010 LABORER, ELECTROPLATING (electroplating) alternate titles: electroplater helper; plater helper; plating-department helper
Performs any combination of following tasks to load and unload electroplating equipment or to assist PLATER (electroplating) 500.380-010: Fastens metal workpieces to devices, such as hooks, racks, and cathode bars, or loads workpieces in baskets or barrels. Immerses workpieces in series of cleaning, plating, pickling, and rinsing tanks, following timed cycle, manually or using

hoist. Carries workpieces between conveyors that move workpieces through electroplating processes. Sets temperature dials of tanks to prescribed level. Flips switch to activate electroplating process in tanks. Removes workpieces from hooks, racks, bars, baskets, or barrels, and examines workpieces for plating defects, such as rough spots and thin plating. Dries plated workpieces, using oven, centrifugal drier, or sawdust-filled container. Packs workpieces in boxes or cartons for shipment [PACKAGER, HAND (any industry) 920.587-018]. Drains solutions from and cleans and refills tanks. Removes buildup of plating metal from racks, using hammer or compressed-air vibrator, and coats racks with shellac. Replaces damaged or worn equipment parts. May be designated according to task performed as Cleaner (electroplating); Rack Cleaner (electroplating); Racker (electroplating); Sawdust Drier (electroplating).
GOE: 06.04.21 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 88

500.687-010 PLATE-TAKE-OUT WORKER (elec. equip.)
Removes storage-battery plates from forming tanks preparatory to further processing. Submerges negative plates in water-filled tank truck to prevent excessive oxidation. Stacks positive plates in dry tank. May push loaded tank trucks to washing and drying room.
GOE: 06.04.24 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

501 DIP PLATING OCCUPATIONS

This group includes occupations concerned with covering, without electrolysis, the surfaces of objects with metal coatings by immersing them in molten, liquid, or solute form of the coating metal, or in materials which react with the object surface to form the metal coating.

501.130-010 SUPERVISOR, HOT-DIP-TINNING (steel & rel.)
Supervises and coordinates activities of workers engaged in operating hot-dip-tinning machines to tinplate black-pickled steel sheets, and in classifying and assorting tinplate. Trains workers in set up of machines. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 6 DLU: 77

501.137-010 SUPERVISOR, HOT-DIP PLATING (galvanizing)
Supervises and coordinates activities of workers engaged in applying corrosion-resistant coatings of zinc, tin, or other metal to variety of metal objects. Monitors gauges to verify operational specifications, such as solution temperature and immersion time. Examines products for even and complete coating. Trains new workers in job duties. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

501.362-010 COATING-MACHINE OPERATOR (galvanizing)
Sets up and controls automatic hot-dip lines to plate steel sheets with protective coating of metal, such as tin or terne: Reads production schedule to determine setup of lines. Turns screwdown mechanism to set distance between coating brushes and rolls, using handtools. Measures and sets stops and guides on automatic feeder and conveying equipment according to dimensions of product to be coated, using rule and wrenches. Turns controls to set temperatures of coating metal and palm-oil pots. Starts conveyor line and moves controls to synchronize speed of line with speed of coating machine that conveys sheets into molten tin covered with palm oil to cause even distribution of tin. Inspects coated product for defects and changes setup to coat sheets to specifications. May be designated according to type of coating as Tinner, Automatic (galvanizing).
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L3 SVP: 7 DLU: 77

501.485-010 WIRE-COATING OPERATOR, METAL (galvanizing) alternate titles: strand galvanizer; wire galvanizer
Tends one or more machines, equipped with series of tanks, that coat wire with corrosion-resistant material, such as tin, zinc, or lead: Lifts and mounts coils of wire on feed reels. Threads end of wire through series of guides, rollers, wipers, and tanks and secures it to rewind reel. Moves levers to heat coating material to molten consistency and set specified temperature of fluxing, cooling, and cleaning baths. Moves controls to start machine, set tension on wire, and adjust speed that wire feeds through tanks. Observes levels of materials in tanks and replenishes material when levels drop below specified point. Measures finished wire to ensure uniformity of coverage, using micrometer. Adjusts machine settings to regulate thickness of coating, according to specifications. Welds coils of wire together, using butt-welder, to maintain continuous wire coating operation. May be designated according to type of coating material applied as Lead Coater (galvanizing); Wire Tinner (galvanizing).
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

501.685-010 PLATER, HOT DIP (galvanizing) alternate titles: galvanizing dipper; pot runner
Tends equipment to coat iron and steel products with corrosion-resistant molten nonferrous metal: Suspends metal objects, such as pails, shelving, nuts and bolts, and structural steel from conveyor hooks or places them in wire baskets. Immerses objects in chemical solution to clean surface of scale and foreign matter. Lowers objects into tank of ammonium chloride or other flux to protect surface from oxidation and facilitate coating. Dips objects into tank of molten metal to coat objects, using hoist or conveyor. Removes objects from tanks after specified time. Places objects, such as nuts and bolts, in centrifuge and starts machine to cool objects and remove excessive coating. Places objects, such as shelving and structural steel, into water tank or transfers them to storage area to cool. Smooths coating, using wire brush and file. Inspects objects for even and complete coating and returns defective objects for reprocessing. Scoops dross from tank, using long-handled scoop; pours dross into molds, and weighs molded dross. Turns valves to regulate temperature in dipping tank. Adds coating metal and chemicals to maintain specified levels and mixtures in cleaning, dipping, and fluxing tanks. May be designated according to type of coating applied as Galvanizer, Zinc (galvanizing); Tin Dipper (galvanizing).
GOE: 06.04.21 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

501.685-014 TINNING-EQUIPMENT TENDER (elec. equip.)
Tends equipment that coats preassembled groups of contact springs for relays and switches: Secures springs with screws, using foot-controlled pneumatic screwdriver. Loads multispring subassemblies on conveyor of equipment that coats terminals of subassemblies with tin. Loads solder bars and flux solution into equipment, and sets thermostat to control temperature of tinning solution.
GOE: 06.04.21 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

501.685-018 BLACK OXIDE COATING EQUIPMENT TENDER (electron. comp.) alternate titles: black oxide operator
Tends computerized equipment that applies black oxide coating to printed circuit board (PCB) panels to prevent electrical contact between layers and to aid adhesion of layers of multilayer PCBs: Loads PCB panels into racks and positions racks under equipment crane. Pushes button to activate crane that automatically lifts racks of panels and immerses racks into series of tanks that coat panels with black oxide. Measures temperature of solutions with pyrometer and turns equipment knobs and valves to adjust temperature and regulate liquid volume. Places panels in oven to dry.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 86

501.685-022 ELECTROLESS PLATER, PRINTED CIRCUIT BOARD PANELS (electron. comp.) alternate titles: deposition operator
Tends electroless plating equipment that immerses printed circuit board (PCB) panels into series of chemical tanks to clean, rinse, and deposit metal plating on panels to improve electrical conductivity and facilitate solder connections in production of PCBs: Turns valves to fill tanks with solutions to specified levels. Loads panels onto dipping racks and attaches racks to bar, hoist, overhead crane, or holding fixture. Sets timer for deposition cycle. Keys data into computer keyboard, presses buttons or pulls levers to activate equipment that moves racks of panels through tanks, or lowers racks into tanks manually. Observes gauges and adjusts valves on tanks to maintain required temperature. Removes PCB upon completion of deposition cycle. May compute length of deposition cycle, using calculator. May add chemicals to tanks. May be designated according to type of coating applied as Copper Deposition Operator (electron. comp.).
GOE: 06.04.21 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 86

502 MELTING, POURING, CASTING, AND RELATED OCCUPATIONS

This group includes occupations concerned with heating metal to change it from a solid to a liquid state, pouring it into a mold or other receptacle and allowing or causing it to solidify.

502.130-010 SUPERVISOR, CASTING-AND-PASTING (elec. equip.)
Coordinates processes, supervises workers, and sets up machines used to manufacture storage-battery grids and plates: Coordinates hand and machine operations, such as lead melting, casting and trimming, paste mixing, grid pasting and drying, and inspection. Sets up machines, such as trimming press and pasting machines. Adjusts stops, guides, blades and rollers, and changes molds. Inspects in-process or finished parts, such as grids, connectors, and wet and dry plates to determine conformance to specifications. Observes gauges, thermometers, temperature controls, and operation of machines and equipment to detect malfunctions and directs or makes changes to correct defects. Reports mechanical breakdowns to maintenance department. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to operation supervised as Supervisor, Grid-Casting-And-Pasting (elec. equip.); Supervisor, Plate Pasting (elec. equip.).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

502.362-010 SHOT DROPPER (ordnance)
Controls kettles at top of shot tower to melt scrap shot, pure lead, and lead alloys and drops mixture through perforated pans down tower to form shot for shotgun shells: Computes in pigs and pounds, amounts of pure lead and lead alloys, containing various percentages of antimony, required to produce mixture of specified antimony content. Notifies MATERIAL HANDLER (any industry) type and quantity of pigs to load onto conveyor. Starts conveyor and turns wheel or moves lever to regulate feed rate of lead pigs and scrap shot into kettle. Observes pyrometers and turns knobs to adjust kettle temperature, according to specifications. Positions specified *shot pan, spreader pan, and cup* in fixture beneath kettle spout. Turns crank to regulate molten metal flow from kettle into cup. Observes falling pellets to detect defects, such as irregular shot size, clogged holes in shot pan, and impurities in lead. Adjusts flow of lead to increase or decrease size of pellets. Adjusts kettle temperature to burn out impurities. Removes pans and dips pans in kettle to melt clogged lead from perforations prior to reuse. Shakes shot samples through gauging sieve and esti-

mates production of specified shot size from percentage of pellets passing through sieve.
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 77

502.381-010 CASTER (jewelry-silver.) alternate titles: molder; slush caster

Casts jewelry pieces and ornamental figures for trophies and placques from molten lead or zinc: Melts zinc or lead alloy bars in kettle. Assembles sections of mold and secures mold with C-clamp. Pours molten metal into mold, using hand ladle. Disassembles mold after specified time and knocks sand from casting, using mallet. Places jewelry piece or figure in tray to cool.
GOE: 06.02.24 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

502.381-014 MOLDER, PUNCH (aircraft mfg.) alternate titles: molder; molder, closed molds

Casts male dies (punches) used in stamping aircraft parts from sheet metal: Operates hoist to position female dies on foundry floor [MONORAIL CRANE OPERATOR (any industry) 921.663-042]. Clamps metal and plywood strips around die to form mold. Shapes mold to specified contours with sand, using trowel and related tools. Tilts melting pot or uses ladle to pour molten alloy (aluminum, lead, zinc) into sand mold. Places metal jig with anchor bolts attached, or similar insert setup, over mold and into molten metal in prescribed manner to attach anchor bolts to punch. May smooth dies. May preheat dies, using blowtorch or other equipment. May apply parting compound to dies. May operate furnaces and ovens.
GOE: 06.02.24 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 88

502.382-010 BULLET-SLUG-CASTING-MACHINE OPERATOR (ordnance) alternate titles: machine-casting operator and adjuster

Operates machine to cast slugs for subsequent swaging into small arms ammunition bullets: Slides lead pigs and scrap into melting kettle, turns valves to control fuel-air mixture to furnace and coolant water flow to molds, and starts pump that forces molten metal through pipes to casting wheels adjacent to kettle. Starts machine and observes water on heated molds to determine when water sizzles, indicating specified temperature of molds for production casting. Examines slugs for such defects as fins, out of miter (halves not matching), partial formation, and pits. Adjusts machine controls and replaces worn and warped molds to correct malformation of slugs, using handtools. Examines molds, using straightedge and light, to detect incomplete closure and warpage, and straightens warped molds, using hand-powered press.
GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

502.382-014 FLUOROSCOPE OPERATOR (nonfer. metal)

Operates fluoroscope to inspect metal castings for hidden defects, such as excessive porosity and subsurface cracks: Aligns castings on table, lowers fluorescent screen over castings, and starts machine. Turns dials to adjust fluorescent penetration depth according to density of metal. Examines reflections of castings on illuminated lid to locate defects. Realigns castings for cross-sectional views, adjusting dials to new focus points. Rejects castings not conforming to plant specifications and places castings aside for salvaging. Notifies superior of findings. Records number of castings inspected and rejected, using automatic counter. Submits minometer pencil worn on person to supervisory personnel for reading to ascertain amount of stray radiation escaping from fluoroscope. May inspect casting for defects, using magnetic testing machine [INSPECTOR, MAGNETIC PARTICLE AND PENETRANT (any industry) 709.364-010].
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

502.384-010 PEWTER CASTER (jewelry-silver.)

Casts pewter alloy to form parts for goblets, candlesticks, and other pewterware: Places pewter ingots into cauldron and turns controls to heat cauldron to specified temperature. Stirs molten alloy and skims off impurities, using skimmer. Sands inside of mold parts to remove glaze residue, using emery cloth; applies new glaze, using paint brush; and sets mold parts aside to dry. Assembles mold, wraps mold in heat-resistant cloth, and ladles molten alloy into mold opening. Manually rotates mold to distribute alloy in mold and prevent formation of air pockets. Strikes mold to separate dried casting from mold, using knocker. Repeats casting process until specified number of parts are cast. Trims gates and sharp joints from cast parts, using bandsaw. Carries trimmed castings to storage area. Periodically weighs and mixes alloy ingredients according to formulas and knowledge of ingredient chemical qualities, heats mixture to specified temperature, and fills molds to form ingots from which parts are cast. May cast items, using other equipment, such as temporary molds or casting machines.
GOE: 06.02.24 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 86

502.482-010 CASTER (nonfer. metal)

Operates gas-fired furnace to melt nonferrous metal, such as aluminum, magnesium, and zinc, and pours molten metal into molds to form castings of items, such as kitchen utensils, laundry equipment, metal furniture, and power mower housings: Weighs specified amounts of ingots or scrap and loads metal into furnace. Turns valve to regulate temperature in furnace. Verifies specified pouring temperature of molten metal, using pyrometer. Positions and clamps specified mold in holding device. Dips hand ladle into furnace pot and pours molten metal into mold. Observes light on preset timing gauge which indicates metal in mold has solidified. Removes casting from mold with handtools, and examines casting for defects, such as cracks, chips, and missing metal. May transport ladle from furnace to pouring station, using jib or monorail crane.
GOE: 06.02.10 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

502.482-014 CASTING-MACHINE OPERATOR, AUTOMATIC (elec. equip.) alternate titles: parts-casting-machine operator

Operates one or more automatic single- or multiple-mold casting machines to mold storage battery parts, such as grids, connectors, and posts: Loads lead bars or shovels pig lead and scrap lead into melting kettle. Ignites burners and sets controls to melt lead and heat molds to specified temperature. Smokes or coats mold with compound to prevent sticking, using acetylene torch or spray gun. Aligns and adjusts mold halves to ensure casting of grids according to specified thickness, using handtools. Turns valves to control flow of lead to ladles and water to mold-cooling sprays. Starts machine that automatically pours specified amount of lead from ladle into mold. Inspects parts ejected from molds to detect defects or discolorations, and measures and weighs grids, using fixed gauges and scale, to ensure conformance to thickness and weight specifications. Adjusts temperatures of lead and molds and flow of lead or water to correct defects. Removes lead adhering to mold, using brush or scraper. Skims dross from molten lead, using hand ladle. May operate single-mold machine equipped with press that automatically trims grids. May repair pipe connections and stitch or replace conveyor belt, using handtools. May change or adjust molds.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

502.482-018 ROTOR CASTING-MACHINE OPERATOR (elec. equip.) alternate titles: die-casting machine operator

Sets up and operates die press, using demountable dies (dies with interchangeable parts) to cast motor and generator rotors: Stacks rotor core laminations [LAMINATION ASSEMBLER (elec. equip.)] and mounts them over keyed mandrel secured to die base of casting machine. Verifies skew of core slots, using fixed gauge and places die shell and top plate over assembly and secures with C-clamp. Loads aluminum bar stock into pot-type furnace. Observes thermocouple dial and turns gas valve to regulate temperature of molten metal. Lines cylinder pot with asbestos strips and disk to prevent chilling. Pours specified amount of molten aluminum into cylinder, using hand ladle. Loads die and lamination assembly into press cavity and closes door. Pulls levers to activate die rams that force molten aluminum through and around laminations and eject cast rotor from press cylinder. Removes and stamps rotor with identifying data.
GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

502.664-010 BLAST-FURNACE KEEPER (steel & rel.)

Taps blast furnace to fill ladles with molten metal: Drills taphole preparatory to tapping, using power hand drill. Positions splasher plate in front of taphole to prevent splashing of metal when furnace is tapped. Guides point of oxygen lance into drilled taphole to tap furnace. Opens gates and shutters to direct flow of molten iron onto runners and into ladles. Plugs taphole after ladles are filled, using mud gun. Assists other workers in breaking up and removing slag from runners, relining runners with sand, clay, and refractory mixture, and drying relined runners. Repairs or replaces defective tuyeres, blowpipes, and boshplates in furnace, using handtools.
GOE: 06.04.10 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

502.664-014 STEEL POURER (steel & rel.) alternate titles: caster

Pours molten metal from ladles into molds to form ingots: Examines molds to ensure that they are clean, smooth, and coated. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to position pouring nozzle of ladle over molds. Pulls lever to lift ladle stopper and allow molten steel to flow into ingot molds to specified height. Replaces defective stoppers, using handtools, sledges, and bars. Signals STEEL-POURER HELPER (steel & rel.) during steel pouring operation to obtain sample of steel for analysis, spray water on filled molds, and cap molds. Removes solidified steel or slag from pouring nozzle, using long bar or oxygen burner.
GOE: 06.02.24 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

502.664-018 STEEL-POURER HELPER (steel & rel.)

Assists STEEL POURER (steel & rel.) in pouring molten metal into molds: Places equipment, such as shovels, water hose, and boards on pouring platform. Counts molds and caps to ensure specified number for pouring operation. Measures and marks molds to indicate specified filling heights, using tape and chalk. Weighs specified additives, and transports additives to pouring platform, using wheelbarrow. Shovels additives into molds to prevent metal from boiling and forming air bubbles inside ingot. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to position hot-tops (covers) or steel plates on filled molds to retard cooling of steel. Pours sample of molten steel into test mold for laboratory analysis. Sprays mold covers with water to cool covers. Signals OVERHEAD CRANE OPERATOR (any industry) to remove covers from molds after steel has solidified. Removes bricks from ladles that require relining and sets stopper assemblies and nozzles in relined ladles, using bars, sledge, and handtools. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.02.24 STRENGTH: M GED: R2 M2 L2 SVP: 5 DLU: 77

502.682-010 BULLET-CASTING OPERATOR (ordnance)

Controls automatic equipment to melt and cast lead into cylindrical billets, and extrude billets into wire for making bullets and cores used in small arms ammunition: Starts electric furnace, observes gauges, and turns rheostat to maintain specified temperature and pressure. Charges furnace with lead pigs and scrap of specified alloy, using conveyor and elevating platform. Skims

dross from molten lead with skimming ladle. Turns wheel to adjust flow of molten lead into mold. Adjusts stroke of billet extractor mechanism, installs extruding dies, and regulates ram speed and flow of water coolant, using handtools. Threads extruded wire over pulleys into slug-forming machines or through guide pipes to be coiled in drums. Verifies wire size with snap gauges to ensure conformity to specifications.
GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

502.682-014 CASTING-MACHINE OPERATOR (nonfer. metal)
Sets up and operates continuous casting machine to produce tubes and rods: Threads graphite die into bottom of crucible that holds molten metal during casting process. Places water jacket around die and connects waterlines. Inserts metal bar (starting tip) through die into crucible to form weld with molten metal. Inserts metal extension rod through driving rollers and threads rod to starting tip. Regulates speed of rollers to draw extension rod, starting tip, and molten metal through die in continuous casting process.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

502.682-018 CENTRIFUGAL-CASTING-MACHINE OPERATOR (jewelry-silver.) alternate titles: caster
Operates one or more centrifugal-casting machines to cast metal parts of costume jewelry: Dusts inside of rubber mold with chalkdust compound to facilitate flow of metal during casting and prevent mold from burning. Fits halves of molds together and places them on mold setting. Places disks under mold to adjust working pressure. Positions metal-pressure plate on mold to level mold on machine. Sets dial for specified pressure and speed of rotation, closes lid, and starts machine. Pours molten metal through funnel into machine, using ladle. Stops machine and removes mold. Separates halves of mold to remove casting, using pliers. May cast wax models of jewelry.
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

502.684-010 LEAD CASTER (elec. equip.) alternate titles: parts caster, hand
Casts lead storage battery parts, such as grids, connectors, posts, and straps: Installs specified type and size mold on bed of machine, using handtools. Loads lead bars or shovels pig lead or scrap lead into melting kettle. Ignites burner and sets controls to melt and heat lead to casting temperature. Coats or smokes faces of mold to prevent sticking, using spray gun or acetylene torch. Dips ladle into molten metal and pours metal into mold. Moves lever or strikes knock-out pins with mallet to open mold and release parts. Inspects parts for cracks, flash, or faulty molding, and adjusts temperature of kettle to correct defects. Trims edges of parts, using hand scraper or pedal-operated power shear. Cleans mold, using brush. May change mold inserts and adjust knock-out pins, using handtools and depth gauge. May position and manually hold one half of mold against other half, pour metal into mold, and separate mold parts and loosen castings, using soft mallet. May pour lead into molds held in radial arms of machine that brings molds to worker and discharges castings onto table. May sort and weigh parts. May be designated according to part cast as Grid Caster (elec. equip.).
GOE: 06.04.10 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

502.684-014 MILL HELPER (nonfer. metal) alternate titles: lead-sheet cutter
Mixes specified ingredients with molten lead, pours lead into molds, and cuts lead slabs to specified dimensions: Charges kettle with materials for melting, using shovel. Guides crane-supported mixer into kettle, and mixes contents in kettle. Opens valve permitting molten metal to flow into mold to form slab. Skims surface of bath to remove impurities, using skimming board. Marks cutting lines on lead sheet, using chalk, steel square, and tape measure, after ROLLING-MILL OPERATOR (nonfer. metal) has rolled slabs into sheets of specified thickness. Guides power-driven knife along chalklines to cut sheets to specified size. Cuts smaller sheets, using portable electric saw or slitting machine. May melt solidified metal in outlet pipes, using gas torch.
GOE: 06.04.24 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

502.684-018 MOLD SETTER (elec. equip.) alternate titles: casting-machine adjuster
Positions and aligns molds used for hand or machine casting lead parts, such as grids, battery posts, and straps: Positions and secures mold on bed of machine, using handtools. Adjusts timing mechanism to coordinate flow of lead and coolant to molds. May oversee workers engaged in hand or machine casting.
GOE: 06.04.32 STRENGTH: M GED: R3 M3 L3 SVP: 3 DLU: 77

502.684-022 NEEDLE LEADER (button & notion) alternate titles: needle molder
Casts needle or thread guide assemblies for use in knitting machines: Selects size and type of mold according to instructions. Positions needles or thread guides into mold slots with fingers and closes mold preparatory to casting process. Ladles molten lead into mold opening to form casting around parts. Removes assembly from mold, using pliers. Cuts excess lead from assembly and smooths rough edges, using knife, saw, and electric grinder. May align needles or thread guides, using gauges, hammer, and pliers.
GOE: 06.04.32 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

502.685-010 MOLDER, LEAD INGOT (ordnance)
Tends furnace to melt lead-antimony pigs and scrap, and ladles molten metal into molds: Slides pigs into furnace pot, allowing oil fumes to burn off melting metal to avoid accumulation of explosive oil vapor-air mixture. Stirs molten metal, skims dross from surface, and ladles metal into ingot molds. Turns valves to control flow of coolant water to molds. Inverts molds, when metal is solidified, and knocks ingots loose.
GOE: 06.04.10 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

502.685-014 REMELTER (elec. equip.; machinery mfg.; print. & pub.)
Tends furnace that melts scrap metal and casts it into pigs (bars or ingots) for reuse: Regulates furnace controls to attain specified temperature. Shovels scrap metal into furnace. Skims dross (scum) from molten metal, using ladle. Turns valve and allows molten metal to run into molds to form pigs. Removes cooled pigs from mold and stacks pigs in storage area.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

502.686-010 CASTING-MACHINE-OPERATOR HELPER (elec. equip.) alternate titles: grid-casting-machine-operator helper
Assists CASTING-MACHINE OPERATOR, AUTOMATIC (elec. equip.) in molding storage battery grids performing such tasks as removing grids from machine rails, counting grids, and stacking grids on dollies. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

502.687-010 BLAST-FURNACE-KEEPER HELPER (steel & rel.)
Assists BLAST-FURNACE KEEPER (steel & rel.) in tapping blast furnace: Breaks slag from casting equipment, such as slag runners, iron troughs, gates, and dams, using bars, hammers, and shovels. Relines runners, troughs, gates, and dams with refractory materials, such as fireclay, sand, and coal dust. Cleans and loads clay gun for plugging taphole. Removes obstructions in runners during casting operations, using tong bar. Obtains sample of molten iron during cast, with spoon and pours sample into test mold. Assists in changing tuyeres, coolers, cinder notches, and blowpipes on blast furnace, using handtools. Cleans dust, debris, and solidified metal from blast furnace and casting area. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

502.687-014 BUSHER (nonmet. min.)
Pours molten lead into center of grinding wheels to form bushing: Lights blowtorch under pot to melt lead. Positions grinding wheels on table with shaft or spindle protruding through center of wheel. Fills area around shaft with molten lead to form bushing. Cuts excess lead from around edge of bushing, using mallet, chisel, and power reamer.
GOE: 06.04.32 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

502.687-018 LEAD-CASTER HELPER (elec. equip.)
Performs any combination of following duties pertaining to casting of lead storage battery parts: Inspects cast storage-battery parts, such as lead washers, lugs, connectors, straps, and trimmed grids for holes, warps, discoloration, or other defects, and segregates rejects for salvage. Cleans excess lead (fins, flashings, and burs) from parts, using handtools. Stacks acceptable grids and sorts other parts according to type. Shovels pig and scrap lead into melting kettle. Skims dross from molten metal, using ladle. May tally number and type of rejects. May be designated according to part processed as Casting Inspector (elec. equip.); Grid Inspector (elec. equip.); or task performed as Lead-Supply Worker (elec. equip.).
GOE: 06.04.24 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

503 PICKLING, CLEANING, DEGREASING, AND RELATED OCCUPATIONS

This group includes occupations concerned with removing coatings of grease, scale, tarnish, oxide, etc., from metal objects to obtain a clean surface. Cleaning is usually accomplished by subjecting the metal objects to acid baths.

503.137-010 SUPERVISOR, SANDBLASTER (ship-boat mfg.)
Supervises and coordinates activities of workers engaged in sandblasting surfaces of ships in drydock and shop equipment: Confers with planning personnel to ensure requisition of equipment and materials. Inspects work to ensure conformance to prescribed standards. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.12.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

503.362-010 PICKLER, CONTINUOUS PICKLING LINE (any industry) alternate titles: cleaner operator; continuous-dryout operator; pickler operator; strip cleaner
Sets up and controls continuous pickling or electrolytic-cleaning line to remove dirt, oil, and scale from coils of brass, copper, or steel strip and wire: Turns valve to add acid to processing tanks and shovels inhibitor into tanks to obtain baths of specified acid concentration. Installs and adjusts guides, pinch and leveler rolls, and side shears on processing line, according to specified dimensions of coils to be cleaned, using handtools. Moves controls to regulate speed of coil through line, to shear coil on each side of weld or stitch, and to remove coil from upcoiler machine. Verifies dimensions of pickled coils, using micrometer and measuring tapes. Examines surface of coils to verify removal of dirt, oil, and scale. Tests solution concentration in baths, using titration test equipment, and adjusts processing line controls to ensure conformance to specifications. May be designated according to type of line controlled as Electrolytic De-Scaler (any industry).
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L2 SVP: 6 DLU: 78

503.362-014 SHOTBLAST-EQUIPMENT OPERATOR (foundry)

Operates equipment to clean dirt, scale, and core materials from steel castings with blasts of steel shot: Presses control panel buttons to adjust equipment settings for manual or automatic operations, length of cycle, sequence and timing of various operations, and position of oscillator. Moves control to activate tow-mechanism drive to transport trolley loaded with castings into shotblast chamber, and watches operation to ensure that hydraulic doors close completely, trolley and oscillator positions are correct, and that air turbine and shotblast wheels start in sequence. Monitors control panel dials and listens to equipment operations to detect jams or malfunctions. Stops equipment to clear jams, replace fallen castings, reposition oscillator, and adjust hydraulic equipment. Notifies machine repairer when unable to correct malfunction. Greases equipment, maintains hydraulic fluid levels, and performs minor maintenance, using grease gun and handtools.

GOE: 06.02.10 STRENGTH: H GED: R3 M2 L3 SVP: 5 DLU: 86

503.684-010 CLEANER (ordnance)

Cleans and prepares subassemblies of pistols, rifles, shotguns, and revolvers for bluing: Disassembles components, such as barrel and ratchet, trigger and hammer, trigger guard, and back strap. Blows out particles remaining after sand blasting, using airhose. Places parts in rack or wire basket and immerses parts in degreasing tank to remove oil and dirt. Mixes alcohol and whitening powder and rubs resultant paste onto gun parts to facilitate bluing. Wires parts together and attaches them to immersing rod. Blows excess solution from blued parts with airhose. Inspects parts for nicks, scratches, clearness of trademark, and cleanness. Reassembles subassemblies, using screwdriver. May pour specified amount of chemical solution (acid) into degreasing tanks.

GOE: 06.04.39 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

503.685-010 COATER (business ser.)

Tends equipment that cleans, coats, and dries baking pans: Mixes cleaning and glazing solutions according to formula or uses premixed solutions. Places pans in baskets and immerses baskets in stripping and soaking tanks to remove glaze and corrosion. Fills spray reservoirs with cleaning and glazing solutions. Removes pans from tanks and places pans on conveyor that carries pans through sprays that wash and coat surfaces with glazing solution to reduce need for greasing and to protect them against rust. Turns nozzles to adjust direction and pressure of sprays. Transfers pans to ovens that dry coating. Turns knobs to adjust oven temperature according to chart. Removes pans from oven and examines surfaces to detect defects, such as warpage and uneven coating. Tends hydraulic press to straighten warped pans. May tend overhead hoist to immerse and transfer pans to and from tanks, conveyors, and ovens. May load and unload pans from trucks, using handtruck.

GOE: 06.04.21 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

503.685-014 DIP-LUBE OPERATOR (ordnance)

Tends tanks to clean lead bullets and coat bullets with wax: Scoops bullets into perforated drum and immerses bullets in solvent to remove chips and grease. Immerses bullets into molten wax. Presses buttons on portable control box to rotate drum. Empties coated bullets onto conveyor belt, closes cover of blower, and starts blower to dry wax and draw off solvent fumes. Examines bullets for defects, such as malformations, gouges, dents, or blunted ends. Discards defective bullets. Starts conveyor to dump bullets that conform to standards into tote boxes. Tests coating solution, using hydrometer, and adds solvent or wax to maintain specified viscosity.

GOE: 06.04.21 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

503.685-018 DRIFTER (steel & rel.) alternate titles: drifting-machine operator

Tends drifting machine that removes scale from inner surfaces of pipe: Installs specified drift mandrel in machine, using handtools, and inserts pipe into head of machine. Moves controls to tighten pneumatic grip that holds pipe in position, and to move mandrel in and out of pipe to loosen scale.

GOE: 06.04.02 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

503.685-022 FLAME DEGREASER (automotive ser.)

Tends oven and auxiliary equipment that burn away grease from used automobile parts preparatory to rebuilding: Ignites gas jets in degreasing oven. Starts machine conveyor and hangs or places grease-coated parts on moving conveyor that carries them through oven and deposits them in collecting basket. Shuts off machine when basket is full. Removes deposited soot and other foreign matter from parts, after parts have cooled, using rotating power brush.

GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

503.685-026 FURNACE-AND-WASH-EQUIPMENT OPERATOR (ordnance) alternate titles: continuous-washer operator

Tends equipment that cleans and dries metal cartridge parts: Loads parts into hopper by hand or using hoist. Moves switches to start conveyor system and rotate open end tumbling barrels that remove oil, scale, and dirt from cartridge parts. Turns steam and water valves and reads gauges to regulate temperature and level of cleaning solutions in tanks and to regulate temperature in drying drum. Adds chemicals, such as acids and detergents, to maintain solutions at specified concentrations. Examines parts at ejection chute to ensure parts are cleaned and dried according to specifications. May operate electric tier-lift truck to position containers filled with parts on platform above feed hopper. May tumble parts in metal-drawing (lubricating) solution prior to drying process.

GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

503.685-030 METAL-CLEANER, IMMERSION (any industry) alternate titles: acid dipper; cleaner; galvanizer; grease remover; neutralizer; pickler; pickling operator; pickling-tank operator; power washer; process treater

Tends equipment that chemically cleans grease, scale, dirt, and other foreign matter from metal objects to prepare them for processes, such as electroplating and galvanizing: Removes shavings, dirt, and rust spots from objects, using airhose, file, or sandpaper. Loads objects on conveyor which carries them through series of chemical and rinsing baths, or places objects on racks or in containers and immerses objects in chemical and rinsing solutions, manually or using hoist. Moves controls to start conveyor and to regulate temperature of solution or conveyor speed. Maintains consistency of cleaning solutions by adding specified amount of chemical to solutions. Drains, cleans, and refills tanks with chemicals. May dry objects, using dryer. May examine cleaned objects to ensure conformance to standards. May be known as Degreaser (any industry); or may be designated according to type of cleaning equipment as Ultrasonic Cleaner (any industry).

GOE: 06.04.39 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 86

503.685-034 METAL-WASHING-MACHINE OPERATOR (svc. ind. mach.)

Tends machine that washes, rustproofs, and dries metal parts used in air-conditioners: Turns valves to activate spray washers. Reads dial instruments and turns valves to adjust pressure. Observes machine operation and loads conveyor line hooks with parts which are then degreased, rinsed, coated with rustproof film, and dried in oven. Tests solutions in tanks by placing few drops in test tubes or pipettes, applying chemical reagents and observing reaction of test sample. Strengthens or dilutes solution as necessary. May perform same tasks on parts used in manufacture of oil burners.

GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

503.685-038 SANDBLAST OPERATOR (ordnance)

Tends automatic sandblasting machine that cleans grease, oil, and grit from fragmentation-bomb cavities: Rolls bomb off conveyor into machine cabinet. Closes door and sets automatic timer at starting position. Pushes button to release pressurized sand stream into bomb cavity. Stops machine when timer indicates completion of sandblasting. Opens cabinet and removes bomb.

GOE: 06.04.02 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

503.685-042 SANDBLAST-OR-SHOTBLAST-EQUIPMENT TENDER (any industry) alternate titles: bead blasting machine tender; shot-blast tender

Performs any combination of following tasks to tend equipment that cleans dirt, scale, and other materials from metal objects with blast of abrasive, such as steel shot, sand, steel grit, or glass beads: Dumps or shovels objects into tumbler and starts tumbler that exposes surfaces of objects to blast of abrasive and tumbling action. Stacks objects on racks, places racks in chamber, and starts blast of abrasive. Places objects on moving conveyor that carries objects under blast of abrasive. Adjusts controls on equipment to regulate pressure and amount of abrasive blast. Pours or shovels abrasive material into feed hopper to replenish supply. May tend equipment to harden or strengthen surface of metal parts and be designated Shot-Peen Operator (any industry).

GOE: 05.12.18 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 87

503.685-046 STRIP-TANK TENDER (ordnance) alternate titles: enthone solder stripper

Tends electrolytic stripping tank to remove excess silver solder from brazed areas of shotgun barrels: Loads barrels in rack and immerses rack in hot cleaning solution and rinsing baths, to remove grease and dirt. Lowers rack into electrolytic tank filled with sodium cyanide solution, using chain hoist. Connects positive charge (anode) to rack and turns valves to regulate temperature and level of liquid in tank. Turns controls to set timing cycle and to regulate flow of current through solution. Returns barrels containing excess solder to tanks for additional treatment. Dips barrels in rinsing tank and immerses them in oil bath to impart rustproof coating. Tests strength of cleaning and stripping solutions, using hydrometer, and adds chemicals to solution to maintain specified concentrations.

GOE: 06.04.10 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

503.686-010 PICKLER HELPER, CONTINUOUS PICKLING LINE (any industry) alternate titles: continuous-dryout-operator helper

Assists PICKLER, CONTINUOUS PICKLING LINE (any industry) 503.362-010 in cleaning coils of metal strips and wire: Sets specified spacing between scale-breaking and straightening rolls and adjusts wipers, brushes, and feed guides, using handtools. Places metal coil on feed-out reel manually or with hoist and feeds leading edge of coil into rollers. Moves controls to lock trailing edge of processed coil to leading edge of coil on feed-out reel to form continuous workpiece. Stacks processed coils on skids. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 06.02.21 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 78

503.687-010 SANDBLASTER (any industry) alternate titles: abrasive-blasting equipment operator

Abrades surfaces of metal or hard-composition objects to remove adhering scale, sand, paint, grease, tar, rust, and dirt, and to impart specified finish, using abrasive-blasting equipment: Shovels or pours abrasives, such as sand, grit, or shot of specified grade into machine hopper. Masks specified areas of object to protect from abrading action. Loads parts on racks in enclosed rooms, into

tumbling barrels, or into cabinets. Turns valves on equipment to regulate pressure and composition of abrasive mixture flowing through nozzle or into tumbling barrel. Starts equipment that directs blast or flow of abrasive-laden compressed air, gas, or liquid over surface of parts. Manually directs nozzle over surface of large parts or inserts arms through glove-fitted cabinet openings and manipulates small parts under nozzle for specified interval. May examine finished parts to ensure conformance to specifications. May be designated by type of equipment or abrasive used as Cabinet-Abrasive Sandblaster (any industry); Shotblaster (any industry).
GOE: 05.12.18 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 81

504 HEAT-TREATING OCCUPATIONS

This group includes occupations concerned with subjecting metal to heat, cold, or chemicals to relieve or redistribute stresses and affect such characteristics as hardness, flexibility, and ductility.

504.131-010 HEAT-TREAT SUPERVISOR (heat treating) alternate titles: heat treater, head; supervisor, hardening; supervisor, heat treating

Supervises and coordinates activities of workers engaged in hardening, tempering, annealing, and other heat-treating processes to condition metal workpieces and products, applying knowledge of heat-treating processes and properties and structure of metals. Conducts metallurgical analyses on metal samples and machine tools. Estimates, requisitions, and inspects materials. Confers with other supervisory personnel to coordinate activities of individual departments. Confers with workers' representatives to resolve grievances. Trains workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

504.281-010 HEAT-TREAT INSPECTOR (heat treating)

Inspects parts and assemblies before and after heat-treating for conformance to specifications: Examines parts for cleanliness and previous inspection clearances. Reads control dials, such as pyrometer, at periodic intervals to ensure specified temperatures, and soaking and cooling times are maintained. Examines processed parts for conformance to specifications, using handtools and precision measuring instruments. Stamps approved items and writes rejection notices and rework orders on parts not meeting specifications. May operate equipment to determine hardness of parts and thermal treatment required to process parts, following blueprint specifications [HARDNESS INSPECTOR (heat treating)].
GOE: 06.01.05 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

504.360-010 FLAME-ANNEALING-MACHINE SETTER (heat treating)

Sets up battery of machines that anneal sidewalls of metal cartridge and shell cases preparatory to further processing: Lights gas burners and turns valves to regulate flow of gas and coolant water. Starts conveyors and dial feeder plates, and turns setscrews in burner nozzles to direct flames which anneal specific area of cartridge case. Replaces worn dial-feed, burner and conveyor parts, using handtools. Instructs new workers in machine operation. Observes color and area of dullness of annealed cases to determine flame temperature and coverage of cases. Crushes random samples between fingers to determine degree of annealing attained. May test cases for hardness [HARDNESS INSPECTOR (heat treating)] and examine cases to determine grain size of metal, using microscope.
GOE: 06.01.02 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

504.380-010 FLAME-HARDENING-MACHINE SETTER (heat treating)

Sets up flame-hardening machines for FLAME-HARDENING-MACHINE OPERATORS (heat treating) according to metallurgical work order specifications, utilizing knowledge of heat-treating methods and metal properties: Positions fixture for holding workpiece and fastens fixture to machine, using wrenches. Mounts workpiece in fixture, on arbor, or between centers of machine. Estimates flame temperature and heating time cycle based on degree of hardness required and metal to be treated. Moves controls to light burners and adjust flame of oxyacetylene, propane, or other gas to prescribed temperature, judging temperature by flame color. Starts automatic feeding or rotating mechanism that moves part through hardening flame. Tests hardness of sample part [HARDNESS INSPECTOR (heat treating)]. Adjusts automatic feeding or rotating mechanism and flame temperature until sample parts meet specifications.
GOE: 06.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

504.380-014 INDUCTION-MACHINE SETTER (heat treating)

Sets up variety of induction machines for INDUCTION-MACHINE OPERATORS (heat treating) to heattreat metal objects according to specifications: Reads work order to determine size and grade of workpiece to be processed. Determines frequency of current, time cycle, and induction heating coil to be used for each job, using knowledge of induction machines, heat-treating methods, and properties of metals. Positions and fastens induction coil and fixture on machine, using wrenches. Adjusts controls to set frequency of current and automatic timer judging from color whether part is heated to specified temperature. Positions and fastens part in fixture and starts machine to heattreat sample part. Tests hardness of sample [HARDNESS INSPECTOR (heat treating)]. Adjusts frequency of current, automatic timer, and fixture on machine until sample meets specifications. May operate induction machine as part of regular duties.
GOE: 06.01.02 STRENGTH: M GED: R3 M3 L3 SVP: 7 DLU: 77

504.382-010 HARDENER (clock & watch)

Controls furnace to harden, anneal, or temper watch parts: Presses button to admit gas mixture, forcing air out of furnace and burning mixture at entrance to prevent discoloration of parts and to maintain carbon content in parts. Places parts in metal basket or cylinder and inserts parts into furnace according to specified temperature. Advises on furnace temperatures and heat-treating time periods, and recommends procedures to produce desired hardness. Quenches pieces with air or oil. May cover parts with charcoal to prevent rapid heating causing discoloration of parts. May insert thermocouple into furnace and connect thermocouple to recorder.
GOE: 06.02.10 STRENGTH: H GED: R4 M3 L3 SVP: 6 DLU: 77

504.382-014 HEAT TREATER I (heat treating)

Controls heat-treating furnaces, baths and quenching equipment to alter physical and chemical properties of metal objects, using specifications and methods of controlled heating and cooling, such as hardening, tempering, annealing, case-hardening, and normalizing: Determines temperature and time of heating cycle, and type and temperature of baths and quenching medium to attain specified hardness, toughness, and ductility of parts, using standard heat-treating charts, and utilizing knowledge of heat-treating methods, equipment, and properties of metals. Adjusts furnace controls and observes pyrometer to bring furnace to prescribed temperature. Loads parts into furnace. Removes parts after prescribed time and quenches parts in water, oil, brine, or other bath, or allows parts to cool in air. May test hardness of parts [HARDNESS INSPECTOR (heat treating)]. May set up and operate die-quenching machine to prevent parts from warping. May set up and operate electronic induction equipment to heat objects [INDUCTION-MACHINE SETTER (heat treating)]. May align warped fuel elements, containing radioactive uranium, using hydraulic ram straightener.
GOE: 06.02.10 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

504.382-018 HEAT-TREATER APPRENTICE (heat treating)

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.02.10 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

504.387-010 HARDNESS INSPECTOR (heat treating)

Tests metal objects to determine their degree of hardness, using hardness testing equipment: Positions workpiece on anvil of testing machine and turns controls to press steel ball or diamond point against surface of piece or to allow diamond-pointed hammer fall on surface to be tested. Measures diameter of indentation caused by steel balls, using microscope, or reads scale on test equipment that indicates depth of penetration of ball or diamond point, or calibrated height of hammer rebound. Reads hardness number from calibrated scale on equipment or converts scale reading to hardness number, using formula or conversion chart. Important variables may be indicated by trade names of equipment used. May cut cross section of sample part and examine part under microscope to determine hardness depth.
GOE: 06.03.01 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 77

504.485-010 RIVET HEATER (heat treating)

Tends furnace that heats rivets to specified temperature: Places specified rivets in gas, oil, or coke furnace, or between electrodes in electric furnace. Turns knobs to regulate heat or current of furnace. Removes rivets from furnace when color indicates rivets are heated to specified temperature and throws rivets to RIVETER HELPER (any industry), using tongs. May tend portable coke furnace to heat rivets in field. May be designated according to type of furnace tended as Rivet Heater, Electric (heat treating); Rivet Heater, Gas (heat treating).
GOE: 05.12.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

504.665-010 SLAB-DEPILER OPERATOR (steel & rel.) alternate titles: table and slab depiler

Tends equipment that transfers steel slabs from conveyor onto charging table of reheating furnace: Moves controls to transfer slab from conveyor onto depiler. Measures slab for conformance to specifications, using tape, and compares identifying marks on slab with information on charging schedule. Pushes levers to lower depiler table and cause pushoff arm of depiler to push slab onto charging table. Assists furnace crew in cleaning bottom of furnace and hearth and in positioning slabs in furnace.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

504.665-014 CHARGER OPERATOR (steel & rel.) alternate titles: charger; pusher

Tends charging mechanism that moves steel shapes, such as blooms, billets, and slabs, in specified sequence, through soaking-pit furnace: Signals CHARGER-OPERATOR HELPER (steel & rel.) 504.686-010 or OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to position steel on furnace skids. Moves levers on control panel to position skid on entry bed, open furnace door, and start pusher arm that pushes steel into furnace. Observes inside of furnace, projected on television screen, and moves controls to spot steel in specified locations. Moves controls to discharge steel onto mill rollers. Records quantity of steel charged and discharged. Assists other workers in cleaning furnace bottoms and repairing or replacing defective equipment, using handtools.
GOE: 06.04.10 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 78

504.682-010 ANNEALER (heat treating) alternate titles: normalizer

Controls furnace to relieve internal stresses in metal objects and to soften and refine grain structure: Reads production schedule to determine processing se-

quence and furnace temperatures for objects to be processed. Turns furnace controls and observes gauges to prepare furnace for annealing process. Charges objects directly onto furnace bed, or packs objects into section of furnace or tubes sealed with clay to prevent oxidation. Reduces heat and allows objects to cool in furnace, or removes objects from furnace to cool in open air. May operate continuous furnace through which objects are passed by means of reels and conveyors and be designated Continuous-Annealing Furnace Operator (heat treating). May anneal wire and be designated Pot Annealer (heat treating).
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 78

504.682-014 CASE HARDENER (heat treating) alternate titles: carbonizer; carburizer

Controls furnace to harden surface of steel objects, using any of following methods: (1) Places objects in wire basket and immerses them in heated chemical bath, such as sodium cyanide. (2) Packs objects in metal boxes filled with carbonaceous material, such as coke, coal, bone charcoal, or barium carbonate, and charges boxes into furnace. (3) Charges objects into furnace and opens valves to circulate carbon-rich gas, such as methane, around objects during heating process. Removes objects from bath or furnace and quenches objects in oil, water, or brine, or allows objects to cool to predetermined temperature before quenching, depending on metal properties specified. May be designated according to article case-hardened as Die Case Hardener (heat treating); or by process used as Cyanide Furnace Operator (heat treating).
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 77

504.682-018 HEAT TREATER II (heat treating)

Controls one or more furnaces to heat treat metal objects according to specifications: Places parts in racks, trays, or baskets, and places objects on conveyor or loads objects directly into furnace. Adjusts furnace temperature and observes pyrometer to heat metal to prescribed temperature. Sets speed of conveyor for prescribed time cycle, or records removal time of parts to ensure objects attain specified temperature for a specified time. Removes parts after prescribed time and quenches parts in water, oil, or other bath, or allows parts to cool in air. May test hardness of parts [HARDNESS INSPECTOR (heat treating)]. May feed die-quenching machine to prevent parts from warping. May degrease or remove scale from parts. May draw wire or sheet metal through furnace and attach metal to winding mechanism that pulls metal through furnace.
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 77

504.682-022 HEAT-TREATING BLUER (heat treating) alternate titles: dulite-machine bluer

Operates gas furnace that heats metal gun parts to rustproof and impart decorative nonreflecting blue finish: Sprays parts with steam to remove grease, grit, and dirt. Places parts in barrel of gas furnace and covers parts with mixture of bone chips and whale or pine tar oil. Closes furnace door and moves lever to rotate barrel. Turns gas valves and observes pyrometer to regulate temperature of furnace. Opens door after furnace cools, and pulls lever to tilt barrel and dump contents into sieve. Sifts parts from bone mixture and quenches parts in oil. Blows oil and chips from blued parts, using airhose. Examines parts to ensure shade and color conform to specifications, utilizing knowledge of heat-treating methods and metal properties.
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 77

504.682-026 TEMPERER (heat treating)

Controls furnace to reheat previously quenched and hardened metal objects, and quenches them in brine, water, oil, or molten lead to remove quenching strains and brittleness and to impart toughness to metal.
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 77

504.685-010 BASE-DRAW OPERATOR (ordnance)

Tends electric furnace that anneals base sections of hardened projectile bodies to facilitate subsequent machining operations: Lifts projectile from conveyor with tongs and fits projectile in holder on machine table. Pushes switch to activate mechanism that elevates table and thrusts projectile base into furnace unit. Observes dial indicator and presses button to maintain flow of current according to specifications. Removes projectile when table descends automatically. Quenches projectile base in water.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

504.685-014 FLAME-HARDENING-MACHINE OPERATOR (heat treating) alternate titles: gas-anneal feeder

Tends flame-hardening machine, according to set procedures, to case-harden metal objects: Positions and fastens part in fixture, on arbor, or between centers of machine. Presses buttons on control panel to light burners that direct flame against part and start automatic feeding or spinning mechanism. Observes machine operation and removes finished part. May anneal metal cartridge or shell cases and be designated Flame-Annealing-Machine Operator (heat treating).
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

504.685-018 HEAT-TREATER HELPER (heat treating) alternate titles: bluing-oven tender; draw-furnace tender; furnace feeder; furnace loader; heat-treat puller; tempering-kiln tender

Assists HEAT TREATER (heat treating) I or HEAT TREATER (heat treating) II in annealing, hardening, or tempering metal objects by performing any combination of the following duties: Cleans foreign matter, such as scale, rust, or grease, from metal objects, using solvents, wire brushes, scrapers, or hammer and chisel. Hangs parts on racks, hooks, or fixture, or places them on handtrucks or conveyors, and charges them into furnace manually or using hoist. Adjusts controls to maintain specified temperature in furnace. Immerses objects in chemical bath or places objects in containers and packs carbonaceous material around them. Quenches heated objects in liquid, such as oil or water. Marks identification on parts. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

504.685-022 INDUCTION-MACHINE OPERATOR (heat treating) alternate titles: electronic induction hardener

Tends electronic induction machine, according to set procedures, to harden, braze, or anneal metal objects: Positions and fastens part in fixture of machine. Presses button on control panel to start electric current flowing through induction coil for prescribed time. May load automatic machine by dumping parts into hopper. May test parts for hardness, using preset hardness testing equipment, and stamp heat treatment identification mark on casting, using hammer and punch.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

504.685-026 PRODUCTION HARDENER (heat treating) alternate titles: carbonizer; case hardener

Tends battery of molten carbonizing salt bath or ammonia-methane furnaces that case harden steel objects, such as buckles, screws, wrenches, and bicycle crank cups: Loads objects by hand into wire basket attached to steel-rod handle. Immerses basket into chemical bath inside furnace pot or into ammonia-methane furnace. Scoops salt into furnace pots to maintain bath level or opens valves to inject gases into furnace, and sets timer. Removes basket from furnace at end of heating cycle and dumps objects into mesh container submerged in tank of quenching oil. May lift container from quenching tank and dip container in rinse water. Dumps objects into box or tray. May signal forklift operator to deposit or extract containers of objects into and from furnaces and quenching and rinse tanks.
GOE: 06.04.10 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

504.685-030 REEL-BLADE-BENDER FURNACE TENDER (agric. equip.)

Tends gas oven that heats lawnmower blades preparatory to bending: Places cold blade on furnace apron and presses pedal to raise furnace door. Positions blade in slotted rack on furnace bed, using tongs. Removes blade from furnace after specified time. Lubricates bending machine, using grease gun.
GOE: 06.04.10 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

504.686-010 CHARGER-OPERATOR HELPER (steel & rel.)

Assists CHARGER OPERATOR (steel & rel.) in moving steel blooms, billets, and slabs through soaking-pit furnace: Straightens steel on furnace skids and roller conveyor, using bar. Places separators between steel shapes and marks identifying information on shapes. May cut, transport and store trial bars in bins. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

504.686-014 FURNACE HELPER (heat treating)

Performs any combination of following tasks near heat-treat furnace: Transfers metal slabs, plates, sheets, and fabricated forms from tables and conveyors to furnace cars and trays, using hoist, handtruck, tractor or by hand. Loads and unloads material from heat-treating, and process-chamber furnaces. Feeds metal into straightening rolls. Breaks lumps of sludge from furnace pots, using airhammer, and shovels sludge into crushing machine. Cuts, identifies, and marks samples, using shear and crayon. Verifies dimensions with tape and micrometer. Separates scrap for remelt according to marking. May feed metal rods from coils into furnace, using hoist, and wind rods into coils as rods emerge from furnace, using winding mechanism.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

504.686-018 HARDENER HELPER (clock & watch)

Assists HARDENER (clock & watch) in hardening and tempering watch parts, maintaining flow of work into and out of department, and cleaning and packaging finished work. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 05.09.01 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

504.686-022 HEAT TREATER (electron. comp.)

Feeds and off bears furnace that heats semiconductor wafers to relieve stress caused by sawing and to stabilize resistivity: Transfers wafers from storage container to quartz *boat*. Places boat on conveyor belt that automatically moves wafers through furnace. Removes boat from conveyor belt at furnace exit. Transfers wafers from boat to storage container after cooling. Records production information on work order.
GOE: 06.04.19 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 86

504.687-010 ANNEALER (jewelry-silver.) alternate titles: heat treater

Heat treats jewelry fittings to soften fittings for further processing, using electric or gas furnace: Sets automatic controls to specified temperature. Fills steel tray with fittings and places fittings in oven, using tongs. Removes tray after specified time and immerses fittings in water. May clean oxide and scale from fittings by immersing fittings in chemical and water baths. May heat treat ingots, using Bunsen burner or torch, and immerse ingots in alcohol to restore ingot malleability. May open and close gas valves, ignite and extinguish gas flames, and set time clock alarm for heating and cooling periods.

GOE: 06.04.10 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

505 METAL SPRAYING, COATING, AND RELATED OCCUPATIONS

This group includes occupations concerned with covering the surfaces of objects with metal or an accretion of metal and adjuncts in molten or semimolten form usually by brushing, spraying, immersing, or coating processes.

505.130-010 SUPERVISOR, METALIZING (any industry)

Supervises and coordinates activities of workers engaged in spraying protective metal coatings on metal to prevent corrosion and to build up surfaces of worn or damaged metal parts: Analyzes work orders, workpieces, and blueprints to determine process, materials, and sequence of operations required to coat metal. Sets up machine tools and metal spray guns to perform special or experimental operations. Trains workers in operation of equipment. Examines finished pieces for conformity to specifications. Directs workers in processes, such as degreasing, sandblasting, welding and brazing, metal spraying, and machining. Inspects malfunctioning of machines and equipment to determine need for repair. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.02.01 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

505.130-014 SUPERVISOR, VACUUM METALIZING (any industry)

Supervises and coordinates activities of workers engaged in vacuum metalizing of glass, plastic, or metal objects, applying knowledge of vacuum metalizing processes, equipment, and procedures: Computes time and pressure specifications for VACUUM-METALIZER OPERATORS (any industry). Observes operations to detect malfunction. Sets up and operates equipment to perform experimental work. Trains workers in operation of equipment. May insert filaments into holders on rack, fill oil tanks of pumps, and examine gauges for malfunction to prepare vacuum metalizing equipment for operation. May position spray nozzles and turn knobs to synchronize conveyor speed, electric-eye action, and temperature and blower action of drying oven to set up automatic spray-painting equipment. May repair and maintain tools and machinery. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

505.380-010 METAL SPRAYER, MACHINED PARTS (any industry) alternate titles: flame-spray operator; metalizer, machined parts; metal-spray operator

Sets up and operates flame-spray equipment and machine tools to build up worn parts, such as crankshafts, motor shafts, clutch plates, and piston rods, and to salvage defective machined parts, according to specifications: Washes object with solvents, or heats object with torch or in furnace to remove impurities, such as grease or paint. Operates machines, such as engine lathes and external grinders, to undercut or groove surface of object. Cleans and roughens surface of object in sand or shotblast cabinet [CABINET-ABRASIVE SANDBLASTER (any industry) 503.687-010] or by electrobonding process. Preheats object for spraying, using oxyacetylene torch or metalizing gun. Sprays metal or other material on object by either of following methods: (1) Positions and clamps metalizing gun to engine lathe carriage. Selects nozzle to accommodate size of wire to be sprayed and screws nozzle into place on metalizing gun. Inserts wire to be sprayed into rear of gun and through feed rollers and nozzle. Connects hoses from gun to air compressor and tanks of oxygen and fuel gas, such as acetylene. Turns knobs to synchronize speed of wire feed, air pressure, flow of oxygen and fuel indicated on dials to specifications computed from data charts. Installs gears in lathe and turns knobs to synchronize rotating speed of chuck and movement of carriage with rate of spray to achieve specified coating on workpiece. Ignites gases to melt wire and presses button or trigger to release compressed air which atomizes and sprays molten metal onto workpiece. (2) Pours specified powder of metal or other material, such as ceramics, into hopper mounted on metalizing gun. Selects nozzle according to type of powder to be used and screws nozzle into place on gun. Turns dials and valves to synchronize feeding rate of powder and flow of oxygen and fuel gas, according to type of powder used. Ignites gases and presses button or trigger to start flow of powder which is atomized and sprayed onto workpiece. Heats object with torch or in heat-treating furnace to fuse coatings, and cools object slowly to prevent cracking. Measures object, using measuring instruments, such as micrometers, gauges, and calipers, to determine conformance to specifications. Operates portable metalizing gun to fill cracks, holes, and apply coating to restore flat or irregular surfaces of machined, forged, or cast objects to original dimensions. May operate machines, such as engine lathes, turret lathes, or precision grinders, to machine-coat objects to original specifications. May spray protective coatings of corrosion-resistant metal onto metal objects. May tend portable air compressors, sandblasting guns, and set up metalizing gun on lathes in customers' plants to repair damaged, worn, or improperly machined parts. May be designated according to type of metalizing equipment used as Thermospray Operator (any industry).

GOE: 06.01.03 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

505.382-010 METAL-SPRAYING-MACHINE OPERATOR, AUTOMATIC I (any industry) alternate titles: flame-spraying-machine operator, automatic; metalizing-machine operator, automatic

Sets up and operates metal spraying machine to bond protective or decorative coatings to metal objects: Positions workpieces into holding fixtures of conveyor. Attaches nozzle onto spray gun and positions gun at specified distance from workpiece. Connects hoses from gun to air compressor and fuel tanks. Threads end from roll of specified wire through gun. Turns knobs and levers to synchronize speed of wire feed, air pressure, and specified flow of oxygen and fuel. Turns knobs and installs gears to set conveyor speed and holding device. Ignites gun to melt emerging wire at nozzle and presses button or turns handle to release compressed air which atomizes and sprays molten metal onto surface of workpiece. Inspects workpieces for coating defects and removes finished pieces from conveyor. May install gears to accommodate larger workpieces. May operate sandblasting equipment to roughen and clean surface of workpieces [SANDBLASTER (any industry)]. May preheat workpieces in oven. May be designated according to type of equipment used as Metal-Spraying-Machine Operator, Crucible Gun (any industry).

GOE: 06.02.21 STRENGTH: M GED: R4 M3 L2 SVP: 7 DLU: 77

505.382-014 WELDING-ROD COATER (elec. equip.)

Controls variety of machines to mix, dip, grind and bake flux onto electric welding rods: Operates bandsaw to cut welding rod stock to specified length. Pours flux ingredients into mixing machine and starts machine. Measures specific gravity of flux mixture, using hydrometer. Pours flux into hydraulic dipping machine. Places rods in dip holding rack and turns end bolt to secure rods, using wrench. Slides rack into dipping machine and adjusts temperature and humidity gauges, according to work order specifications. Removes and places dipped rods on drying rack to dry. Operates grinding machine to remove excess flux from coated rod tips. Bakes coated rods in drying oven for specified period of time. Operates marking machine to print identification code on rods as specified. Cleans equipment, using water hose and scraper.

GOE: 06.02.21 STRENGTH: H GED: R3 M3 L2 SVP: 6 DLU: 77

505.482-010 PASTING-MACHINE OPERATOR (elec. equip.) alternate titles: grid-pasting-machine operator

Operates pasting machine and dryer to apply specified amount of lead-oxide paste onto grids used in making storage battery plates: Stacks grids or multiple-grid panels on bench or in automatic feeding device. Adjusts shoes (guides) on pasting machine to size of grid, using handtools. Adjusts scraper blade (wiper) and roller, according to thickness specified for plate, using wrenches. Hoists carts of paste into position near machine and shovels paste into hopper. Starts machine that automatically feeds grids or manually places grids between shoes. Weighs wet plates on scale and changes elevation of scraper to produce plate of specified weight. Installs device (pyramid) in machine that prevents pasting of center strip of panels and determines width of plates. Sets temperature of dryer. Cleans machine. Changes conveyor belts or cheesecloth cover on roller, using handtools. May tend machine that breaks finished double-grid plates into single units. May segregate defective plates, stack acceptable plates in box, and set aside for curing period. May clean edges and lugs of plates, using wire brush. May mix lead-oxide powders, water, and acids into paste.

GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

505.682-010 SPRAYER OPERATOR (smelt. & refin.)

Controls metal spraying machine and melting furnace to coat carbon anodes with molten aluminum for use in reducing pots: Sets furnace temperature control dial at desired level and checks level of molten aluminum in furnace. Adjusts flow of compressed air through spray nozzle and hydraulic tilt of furnace and turntable. Presses button on control panel to move monorail trolley holding anode assembly onto turntable of spray machine. Starts hydraulic system that lowers turntable and anode to bottom of spray pit. Starts flow of compressed air through nozzle that sprays specified amount of molten metal onto rotating anode. Repositions furnace in original position, stops equipment, and hoists anode assembly onto monorail conveyor for movement to loading station. Cleans aluminum overspray from sides and bottom of pit and places residue in container for reuse. Skims slag from molten aluminum in furnace to remove impurities.

GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

505.684-010 ELECTROLESS PLATER (any industry)

Coats small steel valve parts, crystal slices used in making semiconductors, or related materials with nickel plate, using nonelectric dipping process: Fills dip tank with nickel salt solution and sets controls to maintain specified temperature. Fills basket with parts to be plated or mounts slides bearing crystal slices on holding fixture, and lowers materials into plating tank. Determines time parts remain in bath, using knowledge of process and thickness of plating desired. Removes parts when process is completed. Gauges parts frequently with micrometers to see that specified tolerances are maintained. Adds plating solution or refills tanks, as necessary, to complete plating process. May immerse materials in leaching or cleaning solution preparatory to plating.

GOE: 06.04.33 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

505.684-014 METAL SPRAYER, PRODUCTION (any industry)

Sprays variety of objects, such as valves, clutch plates, and cylinder linings, on production basis, to coat them with specified thickness of metal: Cleans and roughens surface of object in sand or shotblast cabinet [CABINET-ABRASIVE SANDBLASTER (any industry)]. Fastens objects in fixture or between bench centers. Preheats object for spraying, using oxyacetylene torch or metalizing gun. Moves controls to set specified rate of wire feed and flow of oxygen and fuel gases through metalizing gun. Ignites gases to melt wire and presses button or trigger to release compressed air which atomizes and sprays molten metal onto workpiece. Manually directs spray over object to apply coating of speci-

fied thickness. May spray metal objects with soft solder preparatory to assembly and be designated Solder Sprayer (any industry).
GOE: 06.04.33 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

505.685-010 BROWNING PROCESSOR (ordnance)
Tends equipment that imparts decorative bluing or brown-black color, and hard, corrosion resistant surface to gun barrels: Mixes solution of acids and metallic salts, according to formula. Places barrels on conveyor that passes through coloring tanks, electrical drying, and preheating oven into steam chamber where controlled temperature and humidity promote oxidation. Rinses barrels in boiling water and holds them against wire or fiber brush wheel to remove loose rust particles and produce satin finish. Repeats rusting and brushing cycle until color of barrel conforms to specified standards. Swabs browned barrels with rust-preventing oil, using rag or sponge.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

505.685-014 METAL-SPRAYING-MACHINE OPERATOR, AUTOMATIC II (any industry) alternate titles: sprayer
Tends automatic or semiautomatic metal spraying machine that bonds protective or decorative coatings to metal objects, such as clutch plates and valves, on production basis: Loads objects on conveyor or places them in fixture. Sets controls on panel to regulate such functions as conveyor speed, rate of wire or powder feed, flow of compressed air and fuel gas, and starting and stopping of spray. Starts machine and observes operation to detect malfunctioning of equipment.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

505.685-018 VACUUM-METALIZER OPERATOR (any industry) alternate titles: vapor coater
Tends vacuum metalizing equipment that deposits decorative or protective coating of specified metal on metal, glass, or plastic objects: Hooks or clamps articles onto rack. Positions pieces of coating metal over heating filament on rack. Positions rack in vacuum chamber, manually or using hoist. May plug in electrical connection or filaments. Connects gear to motorized jig that rotates rack inside chamber. Closes door and turns handles to seal chamber. Turns handwheel and starts pump to remove air from chamber. Starts booster and high vacuum pumps, and observes dials to obtain specified state of vacuum in chamber. Pushes button to heat filament which vaporizes coating metal and deposits it as film on objects on rack. Turns off electric current after specified time and turns handwheel to permit air to enter chamber. Opens door, removes rack, and lifts coated objects onto truck or dolly.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

509 OCCUPATIONS IN PROCESSING OF METAL, N.E.C.

This group includes occupations, not elsewhere classified, concerned with molding, casting, coating, conditioning, or otherwise processing metal.

509.130-010 SUPERVISOR, POWDERED METAL (nonfer. metal; steel & rel.)
Supervises and coordinates activities of workers engaged in mixing and pressing metal powders, and in sintering, coining, impregnating, and inspecting powdered metal products, applying knowledge of powdered metal properties, press and furnace operation, and sintering and impregnating processes. Trains workers in setup of machines and equipment. May set up briquetting and coining presses and sintering furnaces. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

509.130-014 SUPERVISOR, POWER-REACTOR (chemical)
Supervises and coordinates activities of workers engaged in controlling nuclear reactors to produce plutonium and steam: Observes panel control board indicators to ensure operation of reactors conforms to government and company safety regulations. Analyzes instrumentation data to determine equipment adjustments. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

509.132-010 SUPERVISOR, SOAKING PITS (steel & rel.)
Supervises and coordinates activities of workers engaged in heating and soaking steel ingots preparatory to rolling in blooming and slabbing mills: Prepares schedule for charging and drawing steel into and from preheating and soaking pits. Directs workers in charging ingots into pits and in heating and drawing operations. Inspects furnaces and equipment to determine necessary maintenance. Trains workers in mill operations. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 77

509.362-010 MIXER OPERATOR, HOT METAL (steel & rel.)
Operates machine to mix various charges of molten metal and maintain metal at specified temperature for use in converters and furnaces: Moves controls to raise lid of mixer and signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to pour metal from transfer ladle into mixer. Turns controls to adjust fuel and air mixture to mixer burners to maintain specified temperature in mixer, and to rotate arm that mixes molten metal. Signals OVERHEAD CRANE OPERATOR (any industry) to position ladle for receiving molten metal from mixer for delivery to converters or furnaces. Moves controls to tilt mixer and fill ladle. Inserts long-handled spoon in ladle to obtain sample of molten metal and pours sample into mold for laboratory analysis. Repairs mixer lining, using refractory materials and handtools.
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

509.382-010 COATER OPERATOR (any industry)
Operates roll-coating machine and auxiliary equipment to coat coils of sheet metal, flat metal blanks, or fabricated metal parts with paint, vinyl plastic, or adhesive film: Positions coiled metal strip on mandrel of feed reel or places metal blanks onto feed carriage of machine. Feeds coils of sheet metal into take-up rolls of stitching machine. Starts stitching machine that staples strips together to form endless metal strip. Turns control dials of machines to regulate speed of metal strip, temperature of drying ovens, and flow of chemicals that maintain specified viscosity of solutions in cleaning tanks. Mixes paint or coating solution to specified viscosity and starts equipment to pump mixture into machine reservoir. Turns setscrews to adjust distance between coating rollers that control thickness of coating. Measures thickness of coating to test viscosity, using wet film gauge. Starts pump that fills printing machine reservoir. Adjusts printing cylinder that prints designs on painted metal strip and hydraulic pressure valve of laminating machine that applies plastic vinyl or adhesives to heated metal strip. Turns valve to control spray of water in quenching process that tempers paint, adhesives, or plastic vinyl. Presses pedal of shear machine to cut metal strips. Pushes reel lever to rewind coated metal strip into coil. Examines coated metal workpieces for defects, such as air bubbles or uncoated surfaces.
GOE: 06.02.21 STRENGTH: M GED: R3 M3 L2 SVP: 6 DLU: 77

509.382-014 DENTAL-AMALGAM PROCESSOR (nonfer. metal) alternate titles: special-machine operator
Operates machines to process dental-amalgam and tests amalgam with interferometer: Anneals ingot of tin, copper, and silver to obtain specified molecular characteristics [ANNEALER (heat treating)]. Cuts ingot into chips of uniform size, using engine lathe. Pours chips into hopper of grinder and starts machine to grind chips into microgranules of specified size. Loads granules into elutriator and turns valve to regulate flow of water that forces granules through sieves to separate granules, according to size. Loads moist granules in drying machine or oven. Mixes specimen quantity of alloy with mercury, using amalgamator machine or mortar and pestle, and packs mixture into mold. Removes amalgam from mold and places amalgam between glass panels of instrument. Counts black bands appearing within circle of instrument and informs supervisor of number of bands.
GOE: 06.02.09 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

509.384-010 CASE PREPARER-AND-LINER (ordnance)
Cleans rocket-motor cases and lines them with heat-resistant coatings by performing any combination of following tasks: Moves motor cases through various process stations of building, using hoist and conveyor system. Attaches and removes special handling devices (handling rings) on motor cases, using wrenches and other handtools or portable power tools. Immerses case in chemical bath for specified period to remove protective coatings or contaminants. Wipes solution from inside of case, using cloth. Removes chemical film from surface of case, using sandblasting equipment [SANDBLASTER (any industry)]. Paints outside of motor case, using spray gun. Bakes motor case in drying oven. Lowers motor case onto bed of lining machine. Connects turntable to end of motor case, using wrenches. Starts machine which rotates case and sprays heat-resistant material on inside of case. Examines coating for voids or other defects. Conveys lined motor case to curing oven. Observes recording instrument charts on control panel of curing oven to verify specified temperatures and curing time. Lowers cured cases onto skids and covers ends with paper and gummed tape.
GOE: 06.02.24 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

509.462-010 ALODIZE-MACHINE OPERATOR (nonfer. metal)
Sets up and operates machine that coats flat sheet or coiled metal to specified color and finish: Mixes *alodize* solution in tank of machine, according to formula. Places container of solution sample under test tube and reads gauge to determine solution concentration. Sets up machine rolls and guides, using handtools and micrometer. Turns dial and observes gauge to heat solution to specified temperature. Operates hoist to place sheets on machine feed carriage or to lift coil onto machine spindle. Feeds sheets or end of coil into machine rolls. Adjusts controls to maintain machine speed and temperature of solution to obtain specified color and coverage of metal.
GOE: 06.02.10 STRENGTH: M GED: R3 M3 L2 SVP: 5 DLU: 77

509.485-010 COMPOUND MIXER (tinware) alternate titles: coating mixer
Tends agitator machines that mix compounds used to line and coat tin cans: Measures and pours specified amounts of concentrates and solvents into barrel of solution, using measuring can. Lowers agitator into barrel and starts machine to mix solution. Tests viscosity of solution with viscosimeter and adds solvent or concentrates to obtain specified consistency. Starts pump that forces mix from barrel into storage tank and through feed lines into coating machine reservoirs. Raises and stacks barrels on racks, using chain hoist, and transports them to mixing room with handtrucks. Keeps stock control records.
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

509.485-014 SHOT POLISHER AND INSPECTOR (ordnance)
Tends equipment in shot tower that segregates, routes, blends, and polishes shot (lead pellets) used in shotgun shells: Starts bucket elevator that conveys

newly formed pellets to shot tower and into screening drums that remove oversize and undersize pellets. Turns crank to adjust angle of glass plates over which screened shot is rolled to remove out-of-round pellets, using graduated measuring stick to verify pitch. Pulls levers and chains to direct flow of shot into sieves, polishing barrel, and storage bins, or into scrap bin for remelting. Connects Y-pipe between specified bins and polishing barrel, starts barrel rotating, and opens bin valves to blend full and off-size shot by flowing shot together in Y-pipe. Weighs sample of mixed shot at designated intervals and counts total number of pellets in sample, using pellet counting plate. Measures size of pellets, using pellet measuring stick, and counts number of each size to determine average size. Rolls pellets under dial micrometer to ascertain roundness of pellets. Turns valves by trial and error to obtain shot blend that conforms to specifications. Records results of tests.
GOE: 06.04.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

509.565-010 KILN OPERATOR (steel & rel.)
Tends battery of rotary kilns that heat minerals, such as lime, chrome ore, and manganese, preparatory to mixing minerals with molten metal to form steel: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to deliver specified type and amount of material to kiln feedbox. Pushes switches to start kiln rotating and conveyors feeding materials from feedbox to kiln. Ignites burners under kiln and moves controls to attain specified temperature in kiln. Pulls lever to dump heated material into steel box on platform scale. Weighs and records weight, type, and amount of material heated.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

509.566-010 MIXER OPERATOR HELPER, HOT METAL (steel & rel.)
Assists MIXER OPERATOR, HOT METAL (steel & rel.) 509.362-010 to mix molten metal. Attaches electrical connections to torpedo-ladle car and pushes controls to tilt car and pour metal into hot-metal transfer ladle. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to pour molten iron from ladle into mixer. Records tare weight of torpedo-ladle car. Knocks solidified slag from pouring spout and rim of hot-metal ladle, using hammer and bar. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

509.584-010 TEST PREPARER (nonfer. metal; steel & rel.) alternate titles: sampler; steel sampler; test assembler; test carrier
Collects samples of materials, such as scrap iron and ore, and products, such as metal sheets, rails, tubes, and bars, and prepares samples for physical analysis, using grinders, crushers, drill press, power saws and milling machine. Identifies samples and routes samples to laboratory for analysis. Records test data and type and amount of samples tested.
GOE: 06.04.02 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

509.666-010 COMPOUND-COATING-MACHINE OFFBEARER (tinware) alternate titles: end packer
Removes tin can ends from discharge rack of coating machine: Inspects rubber base coating compound on can ends and ring-pull for conformity to specifications. Notifies PUNCH-PRESS SETTER (any industry) of machine jam or defects in can ends. Packs ends in cartons or paper bags and places containers on pallet.
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

509.684-010 ENAMELER (plumbing-heat.) alternate titles: enamel drier
Sprays finish coat of enamel onto cast-iron sanitary units, such as bathtubs and sinks and bakes unit to provide permanent finish: Wheels units into furnace for preheating, using steel fork mounted on overhead conveyor. Observes color of unit through window in furnace to determine when desired temperature has been reached. Removes unit from furnace and sprays powdered enamel over it, using pneumatic gun. Returns unit to furnace to fuse and glaze enamel, repeating heating and enameling process until unit is coated without discolorations, blisters, or pinholes.
GOE: 06.04.33 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

509.685-010 ALODIZE-MACHINE HELPER (nonfer. metal)
Tends machine that rewinds metal coils processed by ALODIZE-MACHINE OPERATOR (nonfer. metal) and assists in coating metal sheets and coils: Places cardboard core on rewinding arbor and starts end of coil around core. Pulls levers to start rewinder. Cuts material to specified lengths, using hand shear. Tapes loose end and removes coil from rewinder, using hoist. Lifts sheets from discharge end of machine and stacks finished sheets onto skid. Places coil on unwinding equipment and threads coil end through machine, preparatory to alodizing process. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.02 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

509.685-014 BRANNER-MACHINE TENDER (galvanizing)
Tends equipment that applies bran or mixture of sawdust and lime to tin plate surfaces to remove palm oil from plates: Moves controls and valves to regulate speed of conveyor and feed mechanism and adjust flow of soda ash solution to wash unit. Observes operation to detect faulty feeding of plates into units that brush plate surfaces with bran and wash residue from plates. Replenishes exhausting supply of bran in hopper. Inspects plates to ensure removal of palm oil from plates.
GOE: 06.04.39 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

509.685-018 BURNING-PLANT OPERATOR (ordnance)
Tends furnace that heats scrapped small arms ammunition to explode powder and reclaim lead and brass: Pulls trucks of tote boxes from storage area to furnace hoppers. Scoops or dumps primers or loaded cartridges into hopper. Shovels exploded primers from furnace floor or skims cartridge and bullet cases from surface of molten lead, using skimming tool, and deposits them in containers, according to type of metal. Ladles molten lead from furnace pot into pig molds. Carries cooled pigs to storage area and stacks them on skids. May burn waste powder in open pit by dumping it onto wood fire, using remote-control trolley.
GOE: 05.12.10 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

509.685-022 CERAMIC COATER, MACHINE (any industry) alternate titles: ceramic plater
Tends machine that coats metal objects with ceramic material: Places workpiece on rack, observing reflection in mirror below rack to determine when surface to be coated is exposed. Closes machine door and presses button to start rack revolving and initiate coating cycle. Observes gauges and turns valves to maintain specified flow through coating nozzle. Fills reservoir with ceramic material and turns valves on hydrogen supply tanks to maintain flow of gas to machine. Removes coated parts, blows away excess material with airhose, and places parts in container.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

509.685-026 GETTERING-FILAMENT-MACHINE OPERATOR (light. fix.) alternate titles: getterer; getter operator
Tends machine that sprays or dips tungsten wires with chemical (getter) used to burn off residual air and moisture in electric light bulbs: Fills receptacle of machine with getter. Starts machine that sprays or dips getter onto tungsten filaments. Observes application of getter to ensure uniformity and to prevent distortion. May weigh specified quantity of filaments and calculate number, using slide rule and known weight of single unit. May place tray with coated filaments in oven to dry.
GOE: 06.04.21 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

509.685-030 IMPREGNATOR (nonfer. metal; steel & rel.)
Tends vacuum or pressure tank that impregnates powdered-metal parts with lubricating oil or molten plastic: Pours impregnating material into tank. Sets controls of heating unit to attain specified temperature of solution. Places containers of parts in tank and closes cover. Observes gauge and turns valves to attain specified pressure or vacuum in tank. Closes valves after specified time, and removes finished parts from tank.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

509.685-034 LACQUER-DIPPING-MACHINE OPERATOR (button & notion)
Tends battery of machines that dip metal buttons, buckles, and related parts into lacquer: Pours lacquer into tank to indicated level. Hangs racks of parts over lacquer tank, and starts machine that automatically dips buckles into lacquer and raises them over tank to drip dry. Lifts racks from machine to handtruck and transports racks into drying oven.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

509.685-038 LUBRICATING-MACHINE TENDER (ordnance)
Tends tumbling machine that sprays small arms cartridge parts with lubricating solution and dries them preparatory to drawing operations: Empties containers of parts into hopper, manually or using electric hoist. Turns handwheel to regulate spray of lubricating solution. Reads gauges and adjusts steam valves or electrical controls to maintain specified drying temperature within drum. Positions empty container at discharge chute to receive dried parts and removes filled container, using handtruck.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

509.685-042 LUBRICATOR-GRANULATOR (nonfer. metal; steel & rel.)
Tends machines that lubricate, granulate, and pelletize metallic powder: Pours specified amount of powder and lubricants into mixing machine. Starts machine that mixes powder with lubricants for specified length of time. Pours mixture into trays and places mixture in drying ovens. Dumps lubricated and dried powder into hopper of granulator-screener machine. Starts machine that granulates and screens powder. Pours screened powder into jars. Dumps specified amounts of lubricated and screened powder in glass pellet-rolling jars and screws covers on jars. Places jars on rack of rolling machine and starts machine that forms powder into pellets. Separates pellets according to size and places them in jars.
GOE: 06.04.10 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

509.685-046 SCRAP BALLER (nonfer. metal; steel & rel.)
Tends machine that winds metal scrap into balls for salvage: Hooks end of scrap onto reel of machine, using hook or handtool. Starts machine that rotates reel and winds scrap into ball of specified size. Turns lever to eject wound ball from machine. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lower sling, and hooks ball onto sling for removal from work area. Ties ball with wire to prevent unraveling. May grade scrap according to alloy content. May turn reel, manually to wind scrap. May cut scrap metal, using power shear. May weigh scrap metal, using floor scale.
GOE: 06.04.02 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

509.685-050 SCRAP HANDLER (any industry)
Tends machines, such as baling machine, centrifugal separator, and oil purifier to salvage metal parts and cutting oil: Loads and moves barrels or crates of metal chips, shavings, or clippings from machining operations, using handtruck. Dumps metal scrap into baling machine and activates machine to com-

press scrap into bales. Binds bales of metal scrap with wire or metal strapping. Shovels scrap in spinner bucket. Clamps covers, sets timer, adjusts sump pump and oil line valves, and flips switches to start automatic cycle of centrifugal machine that spins metal scrap to separate cutting oil from scrap. Starts centrifugal oil purifier that filters foreign matter from used cutting oil to make oil reusable. Disassembles rejected devices and materials, such as thermostats, valves, conduit, and connectors, using handtools, arbor press, vises, and power hacksaw. Sorts parts according to type of metal or part. Weighs bales and barrels of scrap metal and ties identification tags on scrap. May oversee and demonstrate salvaging procedures to other SCRAP HANDLERS (any industry).
GOE: 06.04.09 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

509.685-054 TANK TENDER (smelt. & refin.)
Tends equipment that refines silver in electrolysis tank: Suspends silver anodes contained in canvas bags, between stainless-steel cathodes held on rack. Aligns and spaces anodes to prevent dislodging by mechanical scrapers. Swabs cathodes with oil to facilitate removal of deposited silver. Lowers rack of electrodes into tank and fills tank with silver nitrate electrolyte. Connects and starts wooden scrapers that scrape deposited silver from cathode. Scrapes remaining silver from cathode with knife and opens bottom of rack to empty silver into box. Removes bags containing depleted anodes and black mud. Examines bags for holes and broken frames and replaces defective parts. May mix acid and silver to prepare electrolyte solution, following standard formula.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

509.686-014 PASTING-MACHINE OFFBEARER (elec. equip.)
Removes battery plates from discharge conveyor of automatic equipment on which twin battery grids are pasted, dried, and broken apart into single grids: Removes and discards grids having defects such as bent, cracked, or unevenly pasted plates. Stacks specified number of finished plates on rack or dolly. Records number and type of rejected plates.
GOE: 06.04.09 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

509.686-018 SCRAP SORTER (nonfer. metal) alternate titles: picker
Sorts scrap metal and removes foreign matter preparatory to use in recasting: Shovels metal scrap onto conveyor leading to magnetic drum that removes iron and steel pieces. Removes contaminating nonferrous metals, manually. May sift scrap to remove excess dirt and rust, using wire sifting tray. May remove inserts from defective castings, using gas torch, tongs, and pliers, and be designated Salvager, Inserts (nonfer. metal).
GOE: 05.12.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

509.687-010 BOTTOM MAKER (steel & rel.)
Relines bottoms of ingot-soaking pits with coke dust to retard formation of oxide scale on hot ingots: Digs out molten metal, slag scale, and cinder from bottoms of pits, using flat-pointed bar, and scrapes debris into ladle. Shovels coke dust into pit, using bar to level bottom surface. May change crane tong bits, using sledgehammer.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

509.687-014 PORCELAIN-ENAMEL LABORER (any industry) alternate titles: check-and-transfer beader
Performs any combination of following tasks, usually on conveyor line, in porcelain enameling process: Brushes or scrapes dry porcelain from holes and designated areas of workpiece, using powered or hand brushes and scraping tools. Inspects enameled workpiece and sands workpiece to remove dirt, blisters, and lumps. Brushes porcelain into nicks. Marks workpiece to indicate routing for further repair or processing. Removes excess enamel from dipped parts with cloth, finger, or suction hose. Marks workpiece with production number, unit number, or other code. Loads or unloads workpieces from conveyor line. Cleans workpiece with solvent and hangs workpiece on rack to dry preparatory to dipping in enamel. May immerse workpiece in porcelain enamel solution. May transport workpiece to work or storage areas, using handtruck.
GOE: 06.04.33 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

509.687-018 STRINGER (jewelry-silver.)
Strings jewelry articles on wire or hangs articles on racks preparatory to further processing, such as soldering, cleaning, plating, or stripping, and carries to machine operator. May clean machines. May be designated according to specific operation performed as Stringer-Up, Soldering Machine (jewelry-silver.).
GOE: 06.04.34 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

509.687-022 WEIGHER, ALLOY (nonfer. metal) alternate titles: charge-gang weigher
Sorts and weighs nonferrous scrap metal and ingots for furnace charges: Separates grades and types of alloys by color or shape of casting and shovels metal into handtrucks. Selects scrap and ingots for furnace charge, according to specifications. Takes sample of furnace melts for laboratory analysis, observes metal in diecasting holding pots and finished castings, or reads label to verify use of specified alloys. May unload box cars of alloy materials. May operate lift truck to transport materials. May charge furnaces with alloy materials.
GOE: 06.03.02 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

509.687-026 LABORER, GENERAL (steel & rel.)
Performs any combination of following tasks to assist workers engaged in production of iron and steel: Feeds and off bears equipment, such as conveyors, pilers, and loaders, to charge furnaces, transport hot metal to rollers, and store finished products. Bundles and ties metal rods, sheets, and wire, using banding machine and handtools. Attaches crane hooks, slings, or cradles to material for moving by OVERHEAD CRANE OPERATOR (any industry) 921.663-010. Transports material to and from production stations, using handtruck. Feeds material, such as ganister, magnesite, and limestone into crushers to prepare additives for molten metal. Grinds defects, such as burrs, seams, and scratches from rolled steel, using portable grinder. Sweeps scale from work area and empties dust bins, using wheelbarrow, broom, and shovel. Breaks up manganese and scrap metal to facilitate handling, using sledge and pneumatic hammer. Marks identification numbers on steel billets, using chalk. Verifies dimension of products, using fixed gauge. Wipes grease and oil from machinery with rags and solvent. May be designated Conveyor Feeder (steel & rel.); Crusher Feeder (steel & rel.); Loading Checker (steel & rel.); Marker (steel & rel.); Racker (steel & rel.); Scrap Breaker (steel & rel.).
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 78

51 ORE REFINING AND FOUNDRY OCCUPATIONS

This division includes occupations concerned with reducing, smelting, refining, or alloying metalliferous extracted ore, ore concentrate, pig, or scrap; and casting ingots, shapes for further processing, and finished metal products in a foundry.

510 MIXING AND RELATED OCCUPATIONS

This group includes occupations concerned with combining mineral ore with solvents or other amalgams to produce a single mass or compound.

510.465-010 CARBIDE-POWDER PROCESSOR (machine shop)
Tends machine and ovens to mix and dry ingredients used to fabricate carbide cutting-tool inserts, following work orders and charts: Reads work order to determine amount and grade of carbide specified. Computes amounts of ingredients required, using charts. Scoops ingredients from canisters, and weighs ingredients on scale to obtain specified amounts. Pours ingredients into cylindrical-tumbler mixing machine, starts tumbler, and stops it after specified time. Pours mixed ingredients into pans, and places them in decarbonizing oven to dry and burn off impurities. Removes pans from oven, adds other ingredients, and sifts mixture through screen to obtain powder of even consistency. Cleans equipment after each batch.
GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

510.465-014 SLURRY-CONTROL TENDER (smelt. & refin.)
Tends ball mill and auxiliary equipment that grind bauxite and mix it with materials to form slurry: Computes amounts of bauxite, starch, and liquor in specified proportion, using weightometer. Turns valves on ball mill to grind bauxite. Turns valves on pumps to release liquor and starch from storage bins and to mix them with bauxite to form slurry. Starts pumps to transfer slurry to digester feed tanks. Opens and closes valves to pump sodium sulfide solution into slurry. Lubricates valves with grease gun, and adjusts packing glands to prevent leaks.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

510.685-010 DUST MIXER (smelt. & refin.)
Tends machines that mix flue dust and milk of lime to facilitate reprocessing in copper smelter: Starts screw conveyor and opens valves and hopper gate to start flow of lime solution and flue dust into mixer. Starts mixer, observes mixture for consistency, and adjusts flow rate to attain specified consistency. Stops flow of ingredients into mixing tank, and draws sample for laboratory analysis. Starts pump to transfer mix to filtering process. Cleans mixer after each batch. Records number of mixes, test results, and amount mixed on production forms.
GOE: 06.04.10 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

510.685-014 MIX-HOUSE TENDER (smelt. & refin.)
Tends machine that mixes sintered lead or zinc ore with materials, such as pulverized coal and coke, salt, water, skimmings, and chemical solutions preparatory to smelting: Starts rotary-drum or paddle-type mixing machine. Squeezes handful of mixture into lump and crumbles it to determine consistency and moisture content of mixture. Turns valves to add water or chemical solution to mixture. May scoop samples of mixed ore into bucket for laboratory analysis. May be designated according to type of mixer tended as Mixing-Pan Tender (smelt. & refin.).
GOE: 06.04.10 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

510.685-018 MIXER (nonfer. metal; steel & rel.) alternate titles: blender
Tends mixing machines that blend batches of powdered metal, according to specifications: Weighs out specified amounts of materials, using scales. Dumps powders into mixing machine, such as tumbling-barrel or paddle-type mixer, and starts motor. Stops motor after specified time, and dumps mixture into containers.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

510.685-022 PUG-MILL OPERATOR (smelt. & refin.) alternate titles: mixer tender
Tends pug mill that mixes preheated magnesia and carbon with hot asphalt to form viscous mixture for use in making pellets: Moves lever to open slide gate at outlet of heating chamber to permit heated mixture of magnesia and carbon to flow into pug mill. Opens and regulates valves to control flow of hot asphalt into mill. Opens valves to feed mixture into hoppers of briquetting machine.

GOE: 06.04.10 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

510.685-026 SINTER-MACHINE OPERATOR (smelt. & refin.; steel & rel.)
Tends sintering machine and auxiliary equipment, such as conveyors, pug mill, and suction fan, to produce sinter cake from finely ground iron ore, lead, coke, and flue dust: Turns gas valve of sintering machine and ignites burner with torch. Moves controls on panelboard to start equipment. Signals SINTER FEEDER (steel & rel.) to feed pug mill conveyor specified amounts of sinter material. Feels mixture processed by pug mill to determine moisture content. Moves controls to regulate water supply to pug mill to attain specified moisture in mixture. Examines sinter cake produced by sintering machine and moves controls of machine to produce cake to specifications. Chips sinter material from chutes and spouts of machine, using bar and hammer. Records weight and type of materials used.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L1 SVP: 5 DLU: 77

510.685-030 SLIME-PLANT OPERATOR I (smelt. & refin.)
Tends agitation tanks that mix copper ore slime and acid solution preparatory to precipitation of copper: Turns valves to regulate flow of slime and sulfuric acid from storage tanks into agitation tanks. Tests samples of solution for alkalinity or acidity, using filter paper, or by means of titration. Combines samples of solution from various stages of process for laboratory analysis. May dry, grind, or screen combined sample.
GOE: 06.04.10 STRENGTH: L GED: R3 M2 L1 SVP: 6 DLU: 77

511 SEPARATING, FILTERING, AND RELATED OCCUPATIONS

This group includes occupations concerned with setting apart desirable materials in ore or concentrate by such means as forcing or drawing it through filtering devices by suction or pressure, sifting, straining, squeezing, centrifugal force, flotation, leaching, amalgamation, electrolysis, distillation, precipitation, or agitating devices.

511.130-010 ALUMINA-PLANT SUPERVISOR (smelt. & refin.) alternate titles: line supervisor; shift adjuster
Supervises and coordinates activities of workers engaged in extracting alumina from bauxite: Calculates feed rates of raw materials, using formulas and chemical analysis reports. Inspects machines and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 77

511.132-010 PRECIPITATOR SUPERVISOR (smelt. & refin.; steel & rel.)
Supervises and coordinates activities of workers engaged in operating electrostatic dust precipitators to control emission of air pollutants or to salvage usable dust from flue: Inspects precipitators in service to determine adjustments required, and out-of-service precipitators for need of maintenance and repair. Trains new workers in adjusting operation and *rapping*, and explains plant layout, working procedures, and safety regulations. May notify air and water pollution-control personnel when operating difficulties cause deviations from pollution standards. May be designated according to type of precipitation as Stack Supervisor (smelt. & refin.). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.10.02 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

511.135-010 FILTER-PLANT SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in tending machines and equipment, such as screens, settlers, flotation cells, thickeners, or filterers, to process ore concentrate and slurry: Inspects machines, equipment, and conveyor systems to detect mechanical defects or malfunctions, and assigns workers to make repairs or adjustments. Observes workers to ensure compliance with safety regulations. Instructs new employees in machine and equipment operation. May be designated according to process supervised as Dewatering-Filtering Supervisor (smelt. & refin.); Flotation Supervisor (smelt. & refin.); Screen Supervisor (smelt. & refin.). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

511.382-010 TUNGSTEN REFINER (smelt. & refin.) alternate titles: chemical operator
Controls chemical-processing equipment to recover tungsten oxide from ground concentrated ore: Starts conveyor to fill reactor tank with ore. Turns valves to pump specified quantity of hydrochloric acid into tank and to admit steam into tank jacket. Observes temperature gauge and adjusts valves to maintain acid solution at specified temperature for specified time. Fills tank with water to wash slurry, and drains waste-bearing water. Turns valve to pour slurry into caustic tank. Precipitates impurities, such as chlorides and oxides, by adding ammonia and sulfuric acid to solution. Filters solution into holding tank to remove precipitate. Adds specified amount of hydrochloric acid to tank to crystallize solution. Dries tungsten oxide crystals by pumping them through filter or centrifuge.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

511.385-010 ZINC-CHLORIDE OPERATOR (smelt. & refin.)
Tends equipment that separates zinc chloride from slag: Breaks up slag, using sledgehammer. Loads slag into water-filled tank, using hoist. Agitates solution to dissolve zinc chloride from slag, using airhose. Determines specific gravity and acidity of solution, using hydrometer and chemical reagents. Pumps impurities from solution through filters. Samples solution and observes its color to determine need for additional reagents and agitation. Pumps treated solution to tank cars or drums. Cleans sediment from equipment, using shovel and water hose, and replaces filter cloths.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

511.462-010 CONCENTRATOR OPERATOR (smelt. & refin.)
Controls machines and equipment from instrumented control board to scrub, condition, float, classify, and convey phosphate rock for use in fertilizer and phosphoric acid: Monitors recording instruments, gauges, panel lights, and other indicators, and listens for warning signal to verify conformance to plant standards. Turns screws and knobs on control board to adjust flow of reagents, air flow, phosphate-rock feed rate, and conveyor belts. Observes flotation tanks to determine amount of sand clinging to rock, cyclones to detect presence of solids, and classifiers to detect wobble in or uneven feed rate of screw. Reports belt weight, amount and evenness of feed rate, waterflow amount, and specific density of slurry to mine, using telephone. Weighs samples from scrubber and conditioner to determine that amount of reagents in tank meets specifications. Reviews laboratory test results and makes adjustments required on control board. Inspects machines and equipment for potential and actual hazards, wear, leaks, and mechanical malfunctions requiring maintenance. Collects samples at various stage of operation for laboratory analysis. Records instrument readings, process conditions, and other operating data in shift log. Manually regulates or shuts down equipment as directed by supervisor. May tag samples collected for laboratory analysis. May assist in making mechanical repairs to machines and equipment during shutdown.
GOE: 06.02.11 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

511.465-010 TOP-PRECIPITATOR OPERATOR (smelt. & refin.)
Tends battery of tanks that precipitate aluminum hydroxide from rich liquor: Schedules filling, seeding, and emptying of precipitator tanks. Opens feedline valves to fill tanks to designated levels with liquor and alumina seed slurry. Adjusts valves to regulate rate of filling precipitators and to maintain specified level in green-liquor tanks. Opens feedline valves to admit measured quantities of aluminum hydrate seed particles into precipitators. Turns valves to agitate mixture with compressed air. Turns valves to control flow of liquor to tanks of secondary thickness. Weighs sample of mixture in flask on platform scale. Reads charts and graphs to determine amount of slurry or liquor required to obtain specified consistency. Signals BOTTOM-PRECIPITATOR OPERATOR (smelt. & refin.) to pump mixture from tanks. Records sequence of operations on forms. May lubricate valves and adjust packing glands to prevent leaks.
GOE: 06.02.10 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

511.482-010 CONTROL OPERATOR (smelt. & refin.)
Controls temperature, chemical composition, and level of cryolite baths in reduction pots to smelt aluminum oxide into aluminum: Breaks off sample piece of crust formed on bath surface, and grinds it into powder, using roll crusher. Routes sample to laboratory for analysis. Dips out sample of solution and pours it into containers, using ladle. Drops chemicals into sample and notes resultant color. Adds specified amounts of chemicals and alloys to bath, according to color shade of sample, to maintain solution at specified level and composition. Measures current flow and voltage between electrical connections on pots, using meters, and computes voltage drop between connections. Measures temperature of bath, heat exchangers, and heat-control pipes, using pyrometer, and turns rheostat to regulate temperature. Verifies specified distance between electrodes, using measuring rod. Measures depth of bath, and computes amount of aluminum available for tapping. Records tests made, amount of chemicals and alloys added to bath, and amount of aluminum tapped from pots.
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

511.482-014 CRYOLITE-RECOVERY OPERATOR (smelt. & refin.)
Operates machines to recover cryolite from scrap potlining: Sets mill gauge to specified feed rate and adjusts air volume, according to screen analysis from laboratory. Sets hearth rheostats and heat controller to specified temperature, and turns valves to adjust rate of flow of steam and oil to burners. Starts system of conveyors, grinder, roaster, mixer equipment, cooling and exhaust fans, and burners. Moves levers to regulate flow of materials, and adjusts valve to control volume of liquor. Turns valve to drain spent liquor and lime hydrate to *causticizer* tanks. Makes titration test, records results, and sends samples to laboratory. Observes gauges, indicators, thermometers, and controls to ensure conformity to specifications.
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

511.482-018 DUST-COLLECTOR OPERATOR (smelt. & refin.) alternate titles: dust operator
Operates battery of electrical precipitators to collect metallic dust particles from fumes of smelting ore: Observes ammeters and voltmeters and moves panel controls to regulate flow of electric current to precipitators according to type of ore being smelted, or according to amount of draft, moisture content of dust, and color of stack emission. Switches off electric current. Replaces broken wire in precipitators, using pliers. May turn valves to spray acid and water into chambers to oxidize dust particles. May pull levers to actuate airhammers that knock dust from electrodes.
GOE: 06.04.19 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

511.485-010 MOLYBDENUM-STEAMER OPERATOR (smelt. & refin.)
Tends equipment that removes reagent from molybdenum ore concentrate: Installs different-size orifices to regulate flow of solids and liquids into vats.

Adjusts steam valve to maintain concentrate at specified steaming point. Draws sample to determine alkalinity of concentrate, using titration test. Regulates flow of lime solution into vats according to alkalinity test readings to neutralize acids. Weighs sample and compares it with standard chart to determine percentage of solids in concentrate. Inserts airhose into vats to clear clogged outlets.
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

511.485-014 THICKENER OPERATOR (smelt. & refin.)
Tends thickeners that separate waste solids from ore solutions or water, preparatory to recovery of metal or disposal of waste: Turns valves to regulate flow of mixture into thickeners. Inserts indicator into mixture to measure sludge level. Observes operation of equipment, overflow of concentrated metal solution, and flow of sludge from tank. Breaks up sedimentation in troughs with wooden paddle. Prepares sample of sludge for chemical analysis by weighing sample, adding acid to facilitate settling of solids, and reducing amount of sample to desired proportion in splitter. May titrate sample and compare resultant color with standard chart to test overflow solution for metallic content. May add chemicals to soften water in tanks. May fill out forms for scale readings and details of malfunctions. May be designated according to kind of materials separated as Red-Mud Thickener Operator (smelt. & refin.); Tailing-Thickener Operator (smelt. & refin.).
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

511.562-010 CLASSIFIER OPERATOR (smelt. & refin.) alternate titles: hydrate-thickener operator; tray thickener operator
Operates classifier units to separate coarse and fine precipitated alumina particles from liquor: Regulates valves on settling trays of hydroseparators to draw fine particles from top and coarse particles from bottom of trays. Adjusts valves to wash liquor from coarse particles in classifier unit. Pumps fine hydrate from underflow of tray thickeners to storage tank for use in precipitating more alumina, and pumps coarse particles to storage tanks to await further processing. Lubricates valves and adjusts packing glands to prevent leaks. May open and close valves and start and stop pumps to circulate cleaning solutions through process lines. May keep log of operations.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

511.565-010 DEWATERER OPERATOR (smelt. & refin.) alternate titles: kiln-head house operator
Tends dewatering machines that filter moist solid aluminum hydroxide from coarse slurry: Turns valves to regulate flow of slurry and wash water to dewaterers and to admit solids to kilns, according to temperature readings, alumina-quality reports, and discharge rates given by KILN OPERATOR (smelt. & refin.). Adjusts valves to maintain supply of water for vacuum pumps, wash water, and water-cooled bearings. Regulates valves in cooperation with other operators to obtain balancing levels in filtrate tanks, hydrate storage tanks, and hydrate storage overflow tanks. Lubricates valves and adjusts packing glands to prevent leaks. Changes automatic recording charts in machines. Records tank levels and density readings of hydrate in log. May tend dust-recovery system.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L2 SVP: 5 DLU: 77

511.565-014 DRIER TENDER (smelt. & refin.) alternate titles: drier operator; rotary-drier operator
Tends oil-fired, rotary, magnetic drier that removes oil and iron from aluminum-scrap turnings: Ignites burner, and adjusts mixture of oil and air to obtain desired temperature. Starts drier, and turns on current to remove iron magnetically. Signals workers to load scrap into drier, and regulates rate of feed in accordance with oil content of scrap. Places wheelbarrow at discharge end of drier to receive processed turnings. Weighs filled wheelbarrow, records weight, and dumps load onto pile.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

511.565-018 IRON-LAUNDER OPERATOR (smelt. & refin.)
Tends iron launders that precipitate copper from solution: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to load launders with shredded tin cans (iron). Starts pumps and turns valves to regulate flow of solution through series of launders to ensure maximum precipitation of copper. Measures copper content of solution at various stages of processing by titration tests. Adds iron to launders to maintain maximum recovery of copper. Excavates precipitated copper from launders and cleans tanks. Keeps record of titration tests.
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

511.582-010 LEACHER (smelt. & refin.)
Controls equipment to leach out metal from ore in solution: Weighs sample of solution and evaporates moisture from it, using heater. Reweighs sample to determine percentage of solid material in solution. Siphons water from solution to obtain specified concentration, following chart. Turns valves to feed chemicals, such as cyanide or acid, into tank of ground ore or filtered slime. Starts mechanical agitators and observes percolation of solution to ascertain dissolution of ore. Tests solution with hydrometer to determine degree of ore concentration. Obtains sample of solution for laboratory analysis. May supervise workers in loading and excavating leaching tanks. May tend filtering machine to separate fluids from metal. May tend pumps to force ground ore and solution into or from tanks. May lubricate equipment and clean tank with water hose. May heat solution in tank with steam and add premeasured amounts of solid materials, such as manganese. May be designated according to ore leached as Molybdenum-Leaching-Plant Operator (smelt. & refin.).
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

511.585-010 HYDRATE-CONTROL TENDER (smelt. & refin.)
Tends equipment that pumps aluminum hydrate from secondary thickeners through wash tanks to storage tanks: Turns valves to regulate amount of hydrate flowing into thickeners and washing tanks to maintain specified density of hydrate. Adjusts valves and pumps to transfer hydrate from secondary thickeners through wash tanks into seed storage tanks. Tests sample of hydrate to determine its density, using hydrometer. Lubricates valves and adjusts packing glands to prevent leaks. Keeps operating log.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

511.586-010 TOP-PRECIPITATOR-OPERATOR HELPER (smelt. & refin.)
Assists TOP-PRECIPITATOR OPERATOR (smelt. & refin.) in precipitating aluminum hydroxide from rich liquor: Opens valves and starts pumps to fill precipitators according to schedule and to add specified seed charges to tanks as directed, using levelometer to determine amount of seed added. Raises and lowers circulating lines, using electric hoist. Drops metal weights from tops of tanks to break scale and crust formations in empty tanks. Lubricates valves and adjusts packing glands to prevent leaks. Examines precipitator tanks for adequate circulation and empty tanks for cleanliness. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

511.662-010 CLARIFIER OPERATOR (smelt. & refin.)
Controls equipment that separates mud from alumina liquor and recovers soda from mud: Pumps thickened mud to washers and turns valves to regulate flow of water into washers. Turns valves to release specified amount of mud into washers to maintain sludge balance. Turns valves to pump sediment from washer into earthen thickeners. Opens valves to introduce starch into mud settlement and to regulate flow of milk of lime at specified rates. Lubricates valves and adjusts packing glands, using grease guns and wrench.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

511.664-010 BOTTOM-PRECIPITATOR OPERATOR (smelt. & refin.)
Empties slurry from precipitator tanks as directed by TOP-PRECIPITATOR OPERATOR (smelt. & refin.): Starts and stops pumps to transfer slurry to thickener tanks. Adjusts valves to control rate of discharge of slurry and to maintain required level of mixture in equalizer tanks. Removes barrel flanges, using handtools. Cleans precipitator barrels and screen boxes, using hose and cleanup tools. Cleans airline of precipitator tank, using metal rod. Lubricates valves and adjusts packing glands to prevent leaks.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: 4 DLU: 77

511.667-010 CLARIFIER-OPERATOR HELPER (smelt. & refin.)
Assists CLARIFIER OPERATOR (smelt. & refin.) in separating mud from alumina liquor and in recovering soda from mud: Turns valves to flush lines. Turns valves to divert flow of alumina liquor through standby equipment as directed by CLARIFIER OPERATOR (smelt. & refin.). Reads tank gauge and records sludge levels of mud settlers and washers. Takes sample of mud sediments and weighs it to determine density. Lubricates valves and adjusts packing glands to prevent leaks, using grease gun and wrench. Cleans screen boxes. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

511.667-014 COLOR TESTER (smelt. & refin.)
Collects and tests samples of copper-ore slurries: Draws samples from processing tanks or vats at specified times and locations, and labels containers with identifying data. Weighs samples, compares color against chart, and measures acidity or alkalinity, using pH meter. Records test results on product-control forms. Observes equipment during rounds to detect malfunctions, and notifies FILTER-PLANT SUPERVISOR (smelt. & refin.) of irregularities.
GOE: 06.03.01 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

511.682-010 DUST COLLECTOR, ORE CRUSHING (smelt. & refin.)
Operates dust-collecting equipment in crushing department of copper refinery to recover dust from ore: Starts feed conveyors, suction fans, impellers, and electrodes, and moves controls to regulate dampers, equalizing ports, and water eliminators. Turns valves to fill and maintain level of water in tanks. Observes operation of equipment and filling of collected dust in hoppers to ensure efficient operation. Inspects and cleans water eliminators, impellers, hopper walls, air chambers, fan housings and wheels, safety switches, and water-level control devices, using water and airhose. Removes and cleans strainers in waterlines. Adjusts and tightens belts on motors or pulley wheels to maintain tension, using handtools. Lubricates motors and exhaust bearings.
GOE: 06.02.10 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 77

511.685-010 AMALGAMATOR (smelt. & refin.)
Tends equipment that separates gold and silver from ground ore by mercury amalgamation process, using either of following methods: (1) Turns valves or opens gates to regulate flow of ore and water over mercury-coated plates. Adjusts angle of plates to facilitate collection of amalgam. Scrapes accumulated amalgam from plates and coats plates with mercury. (2) Turns valves or opens gates to charge ground ore and mercury into rotating-type barrels or agitating-type tanks. Starts equipment and observes accumulation of amalgam. Discharges or drains barrel or tank to recover gold or silver amalgam.
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

511.685-014 CLASSIFIER TENDER (smelt. & refin.)
Tends equipment that separates crushed ore into sands (coarse particles) and slimes (fine particles), preparatory to concentration of metal: Starts equipment.

and regulates flow of crushed ore, water, and flotation reagent into classifiers which separate coarse particles by raking mechanism or swirling action of water while fine particles are carried off in overflow. Observes meter indicating alkalinity of slime, and adds lime solution, as necessary. Removes sand to prevent clogging by flushing or pulling lever on classifier to dump it. May lubricate machines. May replace defective parts, using handtools. May be designated according to type of classifier used as Cone-Classifier Tender (smelt. & refin.).
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

511.685-018 CONDENSER-TUBE TENDER (smelt. & refin.)
Tends battery of condenser tubes in which gaseous mercury is condensed into liquid mercury: Places water-filled buckets at base of each tube to collect liquid mercury. Removes buckets as mercury accumulates, pours off water, and strains mercury into steel flask. Pours mixture of water, mercury, and dust onto sloping table, adds quicklime, and stirs mixture with hoe to separate remaining mercury from sediment.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

511.685-022 DUST-COLLECTOR ATTENDANT (mine & quarry)
Tends equipment that washes taconite ore dust collected from air: Starts dust collection equipment and turns valves to adjust pressure to required level as indicated by manometer. Examines parts of dust collector, such as pipes, nozzles, strainers, and collection surfaces, for pluggings, breaks, leaks, and residue. Closes water valves and stops pumps to permit cleaning and repairing of equipment. Washes residue from collection surfaces, pumps, hoppers, and fans, using water hose. Turns threaded water nozzles into fittings to change type of nozzle or to replace defective ones. Removes mesh strainers and cleans them, using airhose. Tightens glands on pumps and valves, using wrenches. May record gauge readings. May tend equipment that extracts carbon dust from air.
GOE: 06.04.09 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

511.685-026 FLOTATION TENDER (smelt. & refin.)
Tends flotation machines that separate metals from gangue of ore: Turns valves to regulate flow of pulp and reagents into cells. Turns valves to introduce compressed air into cells to agitate mixture and to promote froth that carries metallic particles to surface of liquid and deposits them through side opening of cell into launders. May tend cells that are agitated either mechanically or by air, or combination of both. May lubricate and repair machines. May be designated according to metal separated as Copper-Flotation Operator (smelt. & refin.); Molybdenum Flotation Operator (smelt. & refin.).
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

511.685-030 KETTLE TENDER II (smelt. & refin.)
Tends gas-fired kettle that removes gold, silver, and copper from black mud: Shovels mud into kettle, and turns valve to admit acid until mud is covered. Rakes mud to dissolve gold and silver. Ladles solution into water-filled settling tank to precipitate gold and silver compounds. Removes precipitates and adds reagents to change their chemical composition. Heats precipitates in cupola furnace to extract gold and silver. Ladles remaining mud into tank filled with water and admits steam to dissolve copper.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

511.685-034 KETTLE TENDER, PLATINUM AND PALLADIUM (smelt. & refin.)
Tends gas-fired evaporator that recovers gold, platinum, and palladium from electrolyte used in gold-refining tanks: Adds liquid and gaseous reagents to electrolyte and heats it in evaporator to precipitate metals. Separates each precipitate from solution, using porcelain filters. Heats platinum and palladium precipitates in crucible furnaces to make *sponge*. Breaks up sponge preparatory to shipment, using pliers.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

511.685-038 PRECIPITATOR I (smelt. & refin.)
Tends equipment that precipitates gold or silver from cyanide solution: Packs zinc shavings into compartments of zinc boxes. Regulates flow of solution through boxes where gold or silver precipitates on zinc. Shuts off flow of solution and turns on water. Agitates shavings to remove precipitate. Pulls plugs and draws off slime (precipitate and water) from boxes. Treats slime with sulfuric acid. Turns slime solution into filter press that filters solution and removes precipitate residue. Washes precipitate with water under pressure, and dries it with compressed air.
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

511.685-042 PRECIPITATOR II (smelt. & refin.)
Tends tanks that precipitate uranium oxide from solution of uranium nitrate: Moves pump controls and turns valves to regulate flow of uranium nitrate solution into precipitation tank. Starts tank agitator and turns valve to feed specified amount of ammonia into tank. Dumps specified amount of magnesium oxide from bags into tank. Turns off agitator after specified period to allow uranium oxide to settle. Pumps tank underflow to automatic drier and tank overflow to thickener.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

511.685-046 REAGENT TENDER (smelt. & refin.)
Tends mechanical agitator that mixes chemicals for use in separating metallic particles from ore gangue: Turns valves to pour specified amounts of chemical solutions from storage tanks into mixing tank. Weighs chemical compounds on scales, and dumps chemicals into mixing tanks, using forklift truck. Starts agitator to blend mixture. Turns valves on pumps to transfer mixture to storage tank. May weigh steel rods and balls and transport them to mills, using air-powered dinkey engine. May open chute door of storage tank to charge ball mills.
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

511.685-050 SCREEN OPERATOR (smelt. & refin.)
Tends series of vibrating screens that separate crushed ore or stone according to size: Pushes controls to start screens vibrating and move ore on conveyors or belts. Pulls levers to discharge crushed ore from conveyor or chute onto vibrating screens. Clears screen holes clogged with oversize ore, using bar. Removes clogged screens, using wrenches, and cleans them with compressed air. May tend conveyor belts and process ore through crushers [CRUSHER TENDER (smelt. & refin.)]. May obtain ore samples, using mechanical sampler, hand sieve, or splitter. May tend screens that separate phosphate rock from matrix and be designated Feed-Preparation Operator (mine & quarry).
GOE: 06.04.08 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

511.685-054 SLIME-PLANT OPERATOR II (smelt. & refin.)
Tends equipment, such as grinders, leachers, filters, pressers, and evaporators that recover gold, silver, selenium, and other minerals from impurities: Grinds impure slag or ore in ball mill, and mixes slag with water to form slurry. Turns valves and starts pumps to force mixture into leaching tanks. Starts agitators and adds chemicals to leach combined solutions. Starts pumps to force leached solution into settling tanks, and installs orifices to control rate of flow of sediment and liquids to and from settling tanks to remove liquid. Feeds settled solution through rotary-drum filters, and presses filtered slime in press [FILTER-PRESS OPERATOR (any industry)]. Boils selenium residue to remove moisture for barreling. Obtains and weighs samples of slimes during process, using container and platform scales, and delivers samples to laboratory for analysis. Drains and cleans tanks, wire screens, inflow pipes, and equipment with water hose. May be designated according to mineral recovered as Selenium-Plant Operator (smelt. & refin.).
GOE: 06.04.12 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

511.685-058 SLIME-PLANT-OPERATOR HELPER (smelt. & refin.)
Assists SLIME-PLANT OPERATOR (smelt. & refin.) II in separating ore concentrate from slurry: Turns valves to regulate flow of liquids into tank. Observes operation of filters and notifies SLIME-PLANT OPERATOR (smelt. & refin.) II of malfunctions. Replaces worn filters, using handtools. Lubricates valves and adjusts packing glands. May record operating data in log. May tend overhead bridge crane to transport filters and equipment. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

511.685-062 TABLE TENDER (smelt. & refin.)
Tends concentrating tables that separate valuable metals from gangue of ore and scrap: Turns valves to regulate flow of pulp onto tables. Regulates speed of reciprocating tables to effect maximum separation and recovery of metals. Adjusts slope of tables to establish line of separation between ore and gangue and between valuable metal and scrap. Repairs tables, and adjusts and lubricates driving mechanism. May be designated according to materials processed as Table Tender, Sludge (smelt. & refin.).
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

511.685-066 TROMMEL TENDER (smelt. & refin.)
Tends trommel (revolving drumlike sieve) that washes copper precipitate from scrap iron: Starts previously loaded trommel and turns on water sprays. Pumps precipitated copper and water mixture into settling tank. Shovels spilled scrap iron back into tank. Lubricates trommel bearings, and washes copper from equipment with water hose. May line bottom of railroad car with precut wooden boards preparatory to loading car with copper.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

511.686-010 REAGENT TENDER HELPER (smelt. & refin.)
Assists REAGENT TENDER (smelt. & refin.) in separating metallic particles from gangue of ore: Connects air line and line from storage tank to tank car, using handtools. Turns valves to release air pressure into lines, and observes connections for leaks. Turns valves to pump chemical solutions, such as chlorine, caustic soda, and fuel oils, from tank cars into storage tanks. May weigh steel rods and balls and transport them to mills, using air-powered dinkey engine. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

511.687-010 BLANKET WASHER (smelt. & refin.)
Cleans flannel blankets over which mixture of finely ground gold ore and cyanide solution from grinding mills is passed to collect free particles of gold not dissolved by cyanide: Collects blankets from frames at outflow point of mills. Washes blankets in pans of weak cyanide solution to dislodge gold particles so they may be collected in amalgamation process. Replaces blankets on frames after washing.
GOE: 06.04.27 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

511.687-014 DUST COLLECTOR-TREATER (smelt. & refin.) alternate titles: rapper
Assists DUST-COLLECTOR OPERATOR (smelt. & refin.) in collecting metallic dust particles from fumes of smelting copper ore: Pushes switches to shut off electric current to precipitators, and observes amount of dust accumulated on electrode pipes and plates. Pulls levers to start hammers that knock dust from electrodes into collecting chambers. Opens chamber doors and blows

down dust remaining in chamber, using airhose. Replaces broken wires in precipitators, using pliers. Turns valves to add acid solution and water to chambers to cool and treat fumes. Performs other duties as described under HELPER (any industry) Master Title. May be designated as Acid Conditioner (smelt. & refin.); Cottrell Blower (smelt. & refin.).
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

511.687-018 FLOTATION-TENDER HELPER (smelt. & refin.)
Scrapes caked waste material from sides of flotation cells, and washes cells with water. May ream out air passages of agitators, using steel rod. May collect samples of pulp and concentrate at prescribed intervals for analysis. May assist in dismantling and repair of equipment. May record details of operating conditions in log.
GOE: 06.04.34 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

511.687-022 SKIMMER, REVERBERATORY (smelt. & refin.)
Skims slag from surface of copper being refined in reverberatory furnace: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lower pan, and positions it in front of slag tapping hole. Inserts wood pole through door in side of furnace, working pole back and forth to push slag toward front of furnace. Drags slag from surface of copper into pan, using steel hoe. Inserts compressed-air line through furnace opening, and turns valve to force air through molten metal to oxidize impurities. May shovel coke over surface of skimmed metal to prevent excess oxidation.
GOE: 06.04.34 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

511.687-026 TAILINGS-DAM LABORER (smelt. & refin.)
Directs waste ore materials through pipelines into tailings basin: Opens and closes spigots to regulate flow of tailings. Connects hoses to spigots and adds pipes to lengthen discharge lines, using wrenches. Distributes tailings evenly in basin to form dam of waste materials. Digs ditches with shovel to drain water.
GOE: 06.04.34 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

512 MELTING OCCUPATIONS

This group includes occupations concerned with heating ore concentrate or metal to change it from solid to liquid for such purposes as compounding with other materials, refining, and preparing for casting.

512.130-010 REDUCTION-PLANT SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in operation and maintenance of aluminum-reduction pots. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

512.132-010 MELTER SUPERVISOR (steel & rel.)
Supervises and coordinates activities of workers engaged in operating open-hearth, electric-arc, or oxygen furnaces to produce steel: Directs workers in charging furnace with specified raw material and in taking temperature tests of molten metal. Observes color of molten metal through cobalt-blue glasses, and orders changes in furnace temperature. Coordinates charging and melting with molding and pouring operations. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to type of furnace as Melter Supervisor, Electric-Arc Furnace (steel & rel.); Melter Supervisor, Open-Hearth Furnace (steel & rel.); Melter Supervisor, Oxygen Furnace (steel & rel.).
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

512.132-014 RECLAMATION SUPERVISOR (nonfer. metal)
Supervises and coordinates activities of workers engaged in melting reclaimed dross and scalpings, casting molten scrap into ingots, and alloying aluminum with metals, such as copper, nickel, and iron: Inspects condition (paper-covered, dirty, glass-mixed) and type of incoming scrap to determine melting process, and records information on planning chart. Confers with other departments to determine alloys to be used and priority of casting. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

512.132-018 REMELT-FURNACE EXPEDITER (nonfer. metal)
Supervises and coordinates activities of workers engaged in tapping remelt furnaces, and in fluxing aluminum alloy preparatory to casting: Directs workers in tapping of aluminum alloy from remelt furnaces into ladles and in introducing chlorine gas into ladles to flux molten alloys. Directs OVERHEAD CRANE OPERATOR (any industry) 921.663-010 in moving ladles from tapping position to casting units. Records temperature and time of tapping furnaces and of fluxing ladles. May supervise workers engaged in collecting and weighing charges of aluminum and other metals for melting into alloys and be designated Metal Expediter (nonfer. metal). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

512.132-022 SUPERVISOR, BLAST FURNACE (smelt. & refin.)
Supervises and coordinates activities of workers engaged in controlling blast furnaces to smelt concentrates of lead ore preparatory to refining it. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

512.135-010 POT-ROOM SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in tending reduction pots to smelt aluminum oxide into aluminum: Observes gas flames, warning lights, and voltmeters on pots to verify specified voltage input. Signals POT TENDER (smelt. & refin.) to raise and lower anode to restore pot to normal operation. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

512.362-010 FIRST HELPER (steel & rel.) alternate titles: melter assistant; open-hearth-furnace operator
Operates open-hearth furnaces to produce specified types of steel: Examines raw materials for conformance to specifications. Signals CHARGING-MACHINE OPERATOR (steel & rel.) to place materials in furnace. Turns fuel, air, and steam controls to adjust fuel mixtures and draft. Moves levers to circulate gas throughout furnace to distribute heat and prevent burning out of furnace walls. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to pour molten metal in furnace. Obtains sample of metal, using long-handled spoon, and pours sample into test mold. Tests sample for carbon content, using carbon analyzer. Moves controls to open furnace doors, and shovels additives, such as fluorspar, lime, and alloys, into furnace to obtain specified type of steel. Determines temperature of metal, using thermocouple. Observes color of molten metal through cobalt-blue glasses to determine when to tap furnace and notifies MELTER SUPERVISOR (steel & rel.). Directs crew in tapping furnace and adding specified additives to ladle. Records operational data on forms. Examines furnace to determine repairs needed, and directs crew in repairing furnace walls and flooring.
GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

512.362-014 FURNACE OPERATOR (nonfer. metal; smelt. & refin.)
Controls furnace to refine or melt nonferrous ore or metal to specifications: Sets furnace controls to regulate flow of air, gas, oil, or current to heat metal to specified temperature. Observes color, fluidity of molten bath, and appearance of metal on bar, to estimate temperature, or measures temperature, using pyrometer. Inserts end of green pole into furnace to prevent oxidation of copper. Adds reagents to remove impurities, according to type of metal processed. Skims slag with rabble, dross hoe, or ladle. Opens blowers to force air through tuyeres to agitate bath, and stirs bath with wooden pole or iron rod to release oxygen. Seals taphole with fire clay and firebrick. Turns handwheel or moves lever to tilt or turn furnace and taps metal into pots for removal to other furnaces [TAPPER (nonfer. metal; smelt. & refin.)]. Lifts and transfers ladles of melt, using hoist. Sprays dore or silver crystals with water, and dries them with vacuum drier prior to melting. Samples materials and sends samples to laboratory for analysis [RAW SAMPLER (smelt. & refin.)]. Sprays molds with bone ash to prevent metal from adhering to mold. May replace defective parts or clean equipment. May operate puncher to clear tuyere holes and allow air to pass through molten copper in converters to burn off impurities. May be designated according to type of furnace operated or product processed.
GOE: 06.02.10 STRENGTH: M GED: R4 M2 L2 SVP: 5 DLU: 77

512.362-018 FURNACE OPERATOR (foundry; steel & rel.) alternate titles: air-furnace operator; caster, investment casting; pit-furnace melter; rotary-furnace operator
Controls gas, oil, coal, electric-arc, or electric induction furnace to melt metal prior to casting: Weighs out specified amounts of metal ingots and scrap metal, and charges metal into furnace by hand, using hoist, or by directing crane operator to charge furnace. Loads molten metal into furnace, using transfer ladle. Turns valves to regulate injection of fuel and air into furnace, or moves controls to regulate flow of electricity and water coolant through electrodes to heat furnace to specified temperature. Observes color of metal and instruments, such as voltmeter, ammeter, wattmeter, and pyrometer, and adjusts controls to maintain specified temperature. Sprinkles fluxing agent over surface of molten metal to bring impurities to surface, forming layer of slag. Skims off slag, using strainer. Removes crucible containing molten metal from furnace, using hoist, moves levers to tilt crucible or open crucible door, or breaks clay plug to pour metal into ladle for transportation to molds. Removes test sample of molten metal from crucible, using hand ladle, and pours it into mold. Records data from each melt on form. Positions new electrodes over worn electrodes in electric-arc furnace, using overhead crane, and screws electrodes together, using chain wrench. May transport crucible or ladle to pouring station and pour metal into molds. May be designated according to type of furnace operated as Electric-Arc-Furnace Operator (foundry; smelt. & refin.; steel & rel.); Furnace Operator, Oil Or Gas (foundry); Induction-Furnace Operator (foundry); Tilting-Furnace Operator, Oil Or Gas (foundry).
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

512.382-010 OXYGEN-FURNACE OPERATOR (steel & rel.)
Operates oxygen furnace and auxiliary equipment from pulpit to produce specified types of steel: Moves controls to position furnace for charging operation. Observes temperature gauges and recorders, and moves controls to position oxygen lance and regulate flow of oxygen through lance onto charge. Sets weight indicator gauge according to specified amount of additives to be added to charge. Starts automatic weighing machine that releases additives, such as fluorspar, lime, and alloys, from bins onto conveyor leading to chute over furnace. Moves lever to release additives from chute into furnace. Moves controls to adjust position of oxygen lance in furnace, regulate oxygen flow, or adjust hood draft when sparking or slopping of charge occurs or furnace overheats. Moves controls to position transfer car, carrying ladle and slag pots, under taphole and to tilt furnace for tapping operation. Records operation data.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

512.382-014 STOVE TENDER (steel & rel.) alternate titles: hot blaster

Operates battery of gas-fired stoves to supply heated airblast to blast furnace: Turns gas valves and ignites burners in combustion chamber of stove, using torch. Observes temperature records, and moves controls to close gas and chimney valves when heat inside stove reaches specified temperature. Opens valves on stove allowing air from blowing engine to pass through hot-blast stove into furnace. Adjusts stove controls to maintain specified temperature of airblast. Alternates operation among stoves in battery to provide continuous blast of hot air. Cleans carbon and dirt from flues to prevent internal explosions. Inspects cooling and washing equipment for leaks. Assists furnace crew in casting hot metal and flushing slag from furnace.
GOE: 06.02.10 STRENGTH: L GED: R3 M1 L2 SVP: 5 DLU: 77

512.382-018 TIN RECOVERY WORKER (smelt. & refin.)

Controls scruff and burn-off furnaces and auxiliary equipment to reclaim tin or terne from coating pots, tinplate, and used electrolytic anodes: Washes scruff with hose to remove flux. Starts crushing machine, and shovels scruff into machine to reduce scruff to uniform size. Charges scruff into furnace, and ignites gas burner with torch. Adjusts heat controls to obtain specified temperature for reclaiming metal from scruff. Breaks up lumps in scruff, using rake and hoe. Turns valves to tap furnace and allow reclaimed metal to flow into iron kettle or melting pot. Heats kettle, and skims foreign metal from top, using ladle. Adds specified amounts of tin or lead in producing terne. Pours metal into pig or electrolytic anode molds. Weighs and records amount of recovered metal. Marks weight on pigs, and stores pigs in warehouse.
GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

512.467-010 POTLINE MONITOR (smelt. & refin.)

Tests electrical circuitry and measures temperature and depth level of materials in aluminum reduction pots: Places contact rods of voltmeter against anode of reduction pot and against lining (cathode) of next pot on line to obtain voltage reading of pot circuit. Records meter reading, repeats test on next pot, and deducts reading from previous reading to determine any power loss. Repeats test on each succeeding pot to obtain and record power loss at each point along potline. Removes concrete sections of floor, using overhead hoist, to expose electrical circuits. Places prongs of millivoltmeter on ground and electrical connections to measure amount of positive and negative charges entering pot. Inspects electrical connections, firebrick lining, and wiring to detect damaged, worn, or broken parts, and notifies POT-ROOM SUPERVISOR (smelt. & refin.) of discrepancies. Breaks hole in pot crust with crowbar, and inserts thermocouple to measure temperature of contents. Measures depth of contents, using measuring rod, and records temperature and depth on control form. Dips ladle into pot to remove sample of aluminum for laboratory analysis, and pours sample into mold. Records test readings, voltage loss, temperatures, and depth levels on master control form, and submits it to POT-ROOM SUPERVISOR (smelt. & refin.).
GOE: 06.03.01 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

512.487-010 METAL CONTROL WORKER (foundry)

Weighs alloy, shot, or strips of metal to obtain specified amounts required by FURNACE OPERATOR (foundry; steel & rel.), using platform scale: Cuts bar stock to specified lengths, using power saw. Stamps code on bar to indicate alloy and heat number. Places pelletized metal in barrels. Records weight and kind of metals issued in logbook. Delivers specified metal to FURNACE OPERATOR (foundry; steel & rel.), using handtruck or industrial truck. May verify incoming metal shipments against invoice, store metal, and maintain inventory of metal on hand.
GOE: 06.03.01 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

512.662-010 CUPOLA TENDER (foundry) alternate titles: furnace tender

Controls cupola furnace to melt and refine iron, scrap metal, and other additives to produce gray iron castings: Closes and props door in bottom of cupola. Shovels sand into cupola and tamps sand to form wedge-shaped layer on cupola bottom sloping toward taphole. Kindles fire, using gas torch, to ignite coke bed in cupola, and starts and sets speed of blowers that supply air to cupola. Signals CUPOLA CHARGER (foundry) 512.686-010 to begin charging metal, coke, and limestone into cupola. Reads gauges indicating temperature of molten metal in cupola and amount of air flowing into and out of cupola, and adjusts controls accordingly. Taps molten metal from cupola. Estimates, from color of slag draining from surface of molten metal, physical properties of metal being melted. Pulls prop from bottom doors of cupola, when shutting down furnace, to allow residual materials to drop out. May charge layer of excelsior, rags, and wood over sand bed to protect cupola from initial charge of coke and to ignite fuel.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

512.666-010 FURNACE HELPER (nonfer. metal; smelt. & refin.)

Assists FURNACE OPERATOR (nonfer. metal; smelt. & refin.) by performing any combination of following duties: Seals furnace opening with fire clay and firebrick, using paddle and shovel. Charges furnace with materials, such as scrap, ore, flux, reagents, slimes, oxides, pellets, or coke, by moving levers to open bin or hopper gates, by shoveling, or by signaling FURNACE CHARGER (nonfer. metal; smelt. & refin.) or OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to load furnace. Turns valves to force air through tuyeres into molten metal to oxidize impurities. Observes gauges and manipulates controls on panel to admit nitrogen to prevent igniting of magnesium. Stirs molten metal with green poles to prevent copper from oxidizing. Skims slag from molten metal, using bar, rabble, or ladle. Cleans slag from tuyeres to let air flow, using bar, hammer, or pneumatic drill. Signals OVERHEAD CRANE OPERATOR (any industry), or uses electric hoist, to position ladles or buckets near furnace, and moves levers to tilt furnace into pouring position. Scrapes and chips slag, solidified metal, furnace lining, and residue from furnace, using hammer, chisel, and scraper. Breaks condensers and defective retorts with sledgehammer for removal to crusher. Raps flues and dust catchers with bar to remove dust. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

512.667-010 TEMPERATURE REGULATOR, PYROMETER (foundry) alternate titles: fire regulator

Tests temperature of molten metal for conformance to pouring specifications, using optical or thermocouple pyrometers: Advises CUPOLA TENDER (foundry) or furnace operator when temperature reading varies from specifications. Records temperature reading on standard form.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

512.683-010 CHARGING-MACHINE OPERATOR (steel & rel.) alternate titles: charger; furnace-charging-machine operator; poker-in; pusher runner

Controls charging machine to charge open-hearth furnaces with materials, such as limestone, pig iron, and metal scrap: Moves controls to engage arm of charging machine in slot of charging box. Pushes levers to position charging machine at door of furnace, to thrust box through door, and to rotate arm, dumping contents of box on furnace floor. Withdraws empty box, disengages arm, and moves to next furnace to repeat process. May charge furnace with molten metal and be designated Hot Metal Charger (steel & rel.).
GOE: 06.02.10 STRENGTH: L GED: R3 M1 L1 SVP: 5 DLU: 77

512.684-010 SECOND HELPER (steel & rel.) alternate titles: open-hearth-furnace-operator helper

Assists FIRST HELPER (steel & rel.) to melt and cast iron and steel in open-hearth furnaces: Cleans furnace tapholes, using scraper and oxygen lance. Closes furnace tapholes with pipe, chrome ore, dolomite, or magnesite to prevent loss of molten metal, and relines steel runners. Weighs additives, such as fluorspar, lime, and manganese, and trucks them to furnace areas. Shovels refractory materials into furnace. Assists crew in slagging or flushing furnace. Starts furnace by igniting gas, using torch. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

512.684-014 FURNACE CHARGER (nonfer. metal; smelt. & refin.; steel & rel.) alternate titles: fettler

Performs any combination of following tasks to charge smelting furnaces with aluminum scrap and ingots, and other nonferrous metals, as well as ore, coke, flux, and other materials: Moves levers to open and close furnace doors and to pour specified materials into furnace. Moves controls of charging machine to lift, insert, and dump materials into furnace, or shovels materials into furnace, using hood shovel. Draws samples of molten metal from furnace for laboratory analysis. Reviews laboratory report to determine that smelting is within specified standards, and computes types and amounts of materials to add to furnace to correct smelting, using calculator. Rakes dross or flux from furnace, using skimming tool. Maintains production records of materials charged into furnace. May weigh out specified amounts of materials to be charged into furnace, using scale. May operate industrial dump or lift truck to transport, hoist, and dump scrap or refined aluminum into charging machine or furnace. May operate bucket loader to hoist, convey, and dump aluminum ore, coke, and flux into hopper of smelting furnace.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 78

512.685-010 FURNACE TENDER (foundry; nonfer. metal) alternate titles: remelt operator

Tends furnace that remelts nonferrous alloyed metals used in diecasting process: Shovels specified proportions of scrap metal and ingots into furnace. Sprinkles fluxing compound on molten metal to bring impurities to surface. Skims slag from surface of molten metal, using hand strainer. May transfer molten metal from furnace to bull ladle, using hand ladle. May convey molten metal in bull ladle along overhead monorail, and pour metal into retainer of diecasting machine. May pour molten metal into sand molds, using power hoist. May clean furnaces and equipment.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

512.685-014 NOZZLE TENDER (nonfer. metal)

Tends equipment that produces aluminum powder from molten aluminum: Installs ceramic tube in furnace and positions air nozzle and power collection duct as specified. Taps furnace to allow molten aluminum to flow through ceramic tube where it is transformed into powder by blast from air nozzle and blown into powder collection duct. Observes flow of metal and adjusts air nozzle to regulate fineness of powder. Sifts powder sample through series of sieves and weighs contents remaining in each sieve to estimate quantity of each grade of powder.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

512.685-018 POT TENDER (smelt. & refin.) alternate titles: pot puncher

Tends battery of reduction pots that smelt aluminum oxide into aluminum: Adds specified amounts of oxide to pots from overhead hopper, at designated

time intervals, and rakes oxide over crust formed by cooling of bath. Observes gas flames breaking through crust, and rakes oxide or pieces of crust over flames to prevent damage to anode. Watches warning lights and notes color of electrolyte (solution), and breaks up crust to add oxide to bath, using crowbar or pneumatic crust-breaking machine. Stirs bath to eliminate gas, using rake. Observes instruments and turns rheostat, or repositions anode in bath, to increase or decrease current flow and regulate temperature of solution. May train workers in operation of reduction pots.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

512.685-022 RECLAMATION KETTLE TENDER, METAL (smelt. & refin.)
Tends melting kettle to remelt metal scrap, dross, and skimmings to recover lead, cadmium, zinc, or other nonferrous metals and cast it into pig molds for reuse: Charges kettle manually or using shovel or hoist. Ignites burner to melt and heat metal. Observes thermometer or color of molten metal and adjusts temperature control or turns valve to adjust fuel supply to obtain pour temperature. Stirs and skims molten metal, using bar and skimming tool. Drains, ladles, or pumps metal into molds.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

512.686-010 CUPOLA CHARGER (foundry) alternate titles: cupola stocker
Charges scrap iron or pig iron, coke, and limestone (flux) into cupola in which iron is melted to make castings: Determines quantities and types of materials to be charged, following work orders or verbal instructions from CUPOLA TENDER (foundry). Shovels materials into wheelbarrow. Weighs net contents and wheels materials to charging door of cupola. Dumps iron, coke, and limestone through charging door so that charge in cupola is in alternate layers. May operate power-driven hopper, conveyor, or crane to transfer materials from storage bins to cupola. May weigh out materials or load materials from preweighed piles onto conveyor that charges cupola.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

512.687-010 CONDENSER SETTER (smelt. & refin.)
Places condenser on plate supports in front of retort in zinc furnace to collect and condense zinc vapor created by heating ore in retort: Charges retort with mixture of ore and coal, using skip-loader. Lifts and positions condenser in front of retort, using tongs. Seals joint between retort and condenser by spreading finely ground and dampened mixture of coal and loam to prevent escape of zinc vapor. Banks mouth of condenser with mixture of coal and ore or waste material to prevent zinc from overflowing while allowing combustion gases to escape.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

512.687-014 THIRD HELPER (steel & rel.) alternate titles: open-hearth-furnace laborer
Performs any combination of following duties involved in operation of open-hearth furnaces: Moves controls to open and close furnace doors. Removes molten metal in low spots or pockets of furnace floor, using *air lance*. Shovels refractory materials onto furnace bottom. Transports additives from bins to furnace. Shovels additives into furnace and ladle. Cleans and reams furnace taphole and pries solidified metal from pouring spout, using reaming rod and bar. Sprays slag with water, using hose. Maintains tools and equipment required for furnace operations. Cleans charging floor and furnace areas.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

513 ROASTING OCCUPATIONS

This group includes occupations concerned with heating ore and concentrates in calciners, furnaces, or kilns to remove moisture or to drive off impurities.

513.132-010 CONVERTER SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in operating converter furnaces to produce metallic copper from copper matte, or in mixing, roasting, or drying copper concentrate prior to smelting operation: Monitors processing to verify conformance to specifications. Inspects equipment to detect malfunctions or defects and assigns worker to make repairs or adjustments. Demonstrates operation and maintenance of machines and equipment to new workers, and explains plant layout, processing techniques, and safety regulations to orient new workers. May be designated according to operation supervised as Roaster Supervisor (smelt. & refin.). Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

513.362-010 CALCINER OPERATOR (mine & quarry; smelt. & refin.)
Controls calciners and allied equipment from instrumented panelboard to heat ore slurry, dry slurry, and drive off impurities: Monitors recording instruments, flowmeters, panel lights, and other indicators, and listens for warning signals on panel to operate calciner, conveyor system, and allied equipment. Turns screws and knobs on panelboard to control feed rate, temperature, and conveying of ore. Examines calcined ore to determine, by color, that it meets company specifications. Confers with other departments to adjust steam, water, and fuel supply, using telephone or radio. Confers with supervisor to report equipment failure or malfunction, and to resolve problems in process changes. Maintains record of steam, water, and fuel used during shift. Records process changes, malfunctions, and other actions in shift log and operator's sheet. Examines calciners and allied equipment, such as conveyor belts and chutes, blowers, pumps, compressors, and power lines, waterlines, and air lines, for wear or defects. Periodically cleans calciner, working as member of team, and using air-hammer, water hose, pick, shovel, and wheelbarrow. When drying copper ore, may be designated Reactor Operator (smelt. & refin.).
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

513.462-010 FURNACE OPERATOR (smelt. & refin.)
Operates furnace to remove moisture, arsenic, or sulfur from ore: Charges top hearth of roaster with ore, regulating rate of charge by means of chute door. Determines speed with which roaster is being charged by weighing sample of charge ore obtained over measured interval of time. Starts rabbles (automatic rakes) that scrape hearth beds continually and move ore from one hearth to next lower one. Regulates draft and temperature of roaster by adjusting dampers and gas pressure. Replaces rabble arms by detaching arm from shaft with bar and removing it with hoist. Replaces defective rabble teeth. Directs workers in removing incrustations from hearth beds. Removes samples of roasted ore for laboratory analysis. May clean arms and rabbles with scrapers and iron bars. May determine oxide content of dried ore by titrating specified amount of flakes and calculating percentage. May replace defective parts and clean equipment.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

513.565-010 KILN OPERATOR (smelt. & refin.)
Tends battery of rotary kilns in which hydrated alumina is calcined: Moves levers and switches to start kilns and regulate their speed. Adjusts controls to regulate temperature, pressure, and rate of flow of oil, gas, air, flue gases, and steam vapor. Directs DEWATERER OPERATOR (smelt. & refin.) in regulating flow of hydrated alumina into kilns. Turns valves to adjust water supply to cooler coils, kiln trunnions, and water-cooled bearings. Inspects kilns, carriages, and drive mechanisms for signs of faulty operation or overheating. Keeps log of operational data, such as air temperature and oil or gas pressure. May lubricate valves and adjust packing glands to prevent leaks. May tend air slides and bucket elevators to convey alumina to storage bins.
GOE: 06.02.10 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

513.587-010 KILN-OPERATOR HELPER (smelt. & refin.) alternate titles: calcination helper
Assists KILN OPERATOR (smelt. & refin.) in calcining hydrated alumina in rotary kilns: Moves controls to direct flow of alumina through standby equipment. Lubricates valves with grease guns. Adjusts packing glands to prevent leaks, using handtools. Cleans coolers, using *air lance*. Observes flow of alumina through kilns, inspects equipment, and reports defects or malfunctions to KILN OPERATOR (smelt. & refin.). Takes sample of alumina in bucket for laboratory analysis. Records weights of alumina stored. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

513.667-010 CALCINER-OPERATOR HELPER (mine & quarry; smelt. & refin.)
Records machine and equipment readings in shift log at specified intervals, examines machines and equipment for malfunctions, and draws composite samples of ore at various stages of processing for laboratory testing: Reads gauges and records water and oil levels, temperatures, and pressures at specified intervals. Examines motors for leaks or hot bearings, conveyor belts for buildup or spillage, belt rollers for squeaks that indicate wear or belt misalignment, oil level in sight glasses, and exhaust fans for dirt and dust buildup. Turns handle to reposition filter on fluidizing blower. Dips sample of ore into bucket or jar at various stages of processing to collect composite sample for laboratory analysis. Notifies CALCINER OPERATOR (mine & quarry; smelt. & refin.) of machine and equipment malfunctions.
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

513.682-010 ROTARY-KILN OPERATOR (smelt. & refin.)
Operates rotary kiln in which cinnabar (mercuric sulfide ore) is volatilized to obtain free mercury: Ignites oil burner and turns fuel and air pressure valves to heat kiln to specified temperature. Sets controls to regulate conveyor speed and rotation of kiln. Observes gauges and flow of ore into kiln and turns controls to maintain temperature and amount of ore in kiln. Lubricates and repairs kiln and equipment.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

513.685-010 SINTER FEEDER (steel & rel.)
Tends table-feeding equipment that regulates flow of finely ground iron ore, coke, and flue dust from storage bins onto sintering machine conveyors: Starts table feeder and conveyor and adjusts rheostats to regulate speed of vibrating feeders. Moves controls to regulate opening of feed gate according to rate of flow of material onto conveyor. Observes equipment to detect malfunctions. Clears clogged chutes or feed gates, using bar and shovel. Fills sample box with material on conveyor, weighs sample, and records weight. Reads weightometer scale and records weights of material being processed.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

514 POURING AND CASTING OCCUPATIONS

This group includes occupations concerned with pouring, injecting, centrifuging, or pressing molten or powdered metal into a mold or other receptacle, and permitting or causing it to solidify.

514.130-010 PERMANENT-MOLD SUPERVISOR (foundry; nonfer. metal)

Supervises and coordinates activities of workers engaged in producing nonferrous metal castings by permanent-mold process: Verifies setup of permanent-mold casting machines. Consults with LAY-OUT INSPECTOR (machine shop) 600.281-014 to check layout of castings and to determine cause of casting defects, such as core shift, mold shift, or pouring termperature. Initiates changes in mold and core alignment, pouring temperature, or timing cycle of casting machine to correct defects. Trains new workers in departmental or job procedures. May perform minor maintenance on permanent-mold casting machines. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

514.130-014 SUPERVISOR, DIE CASTING (foundry; smelt. & refin.)

Supervises and coordinates activities of workers engaged in setting up and operating diecasting machines, applying knowledge of diecasting process and properties of molten metal: Reads work orders to determine type of diecasting machines to be used. Initiates changes in timing of casting cycle, lubrication of dies, cooking of dies, or spacing between dies to correct defects in castings. Trains new workers in job duties. May supervise operation of melting furnaces and trim presses. May adjust thermostats to control temperatures of molten metal. May set up diecasting machines for workers. May be required to have experience with specific materials or type of machine. Performs duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

514.131-010 INSPECTOR, CHIEF (foundry)

Supervises and coordinates activities of workers engaged in inspecting and measuring metal castings: Lays out reference points on sample castings and verifies dimensions against blueprints [LAY-OUT INSPECTOR (machine shop) 600.281-014]. Inspects rejected castings for defects, such as blowholes, cracks, and rough spots, to determine repairs required to salvage castings. May weigh and count castings, and record inspection data on standard form. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

514.134-010 TAPPER SUPERVISOR (smelt. & refin.)

Supervises and coordinates activities of workers engaged in tapping molten aluminum from reduction pots: Inserts metal rod into pots and inspects coating deposited on rod to determine amount of metal to tap. Moves hand controls to raise and lower anode and to control voltage drop in pot during tapping. Records pot number on outside of crucible, using chalk. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

514.137-010 SUPERVISOR, PIG-MACHINE (steel & rel.)

Supervises and coordinates activities of workers engaged in casting molten iron into pigs, and in cleaning blast furnace area, pig machine, and slag pits. Coordinates movement of materials into and out of department. Performs duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 77

514.137-014 SUPERVISOR, PIT-AND-AUXILIARIES (steel & rel.)

Supervises and coordinates activities of workers engaged in preparing equipment for tapping furnace, teeming (pouring) molten steel in molds, and stripping and weighing ingots. Performs duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.04.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

514.360-010 DIE-CASTING-MACHINE SETTER (foundry)

Sets up diecasting machines that cast parts, such as automobile trim, carburetor housings, and motor parts from nonferrous metals, such as zinc, aluminum, or magnesium: Lifts specified die sections into machine, using chain fall or hoist. Secures die sections in position and adjusts stroke of ram, using handtools. Connects water hoses to cooling system of die. Preheats die sections with torch or electric heater. Turns valves and sets dials to regulate flow of water circulating through die, timing cycle, and operating speed of machine, based on size and structure of part to be cast and type and temperature of metal being used. Starts machine to produce sample casting, and examines casting to verify setup. May clean diecasting machines, using high-pressure steam hose and detergent. May perform maintenance on machine or dies, such as replacing pipelines or hoses, lubricating machine, or replacing ejector pins in dies. May verify machine setups and adjust malfunctioning machines and be designated Die-Casting-Machine Maintainer (foundry). May dismantle dies for repair by DIE MAKER, STAMPING (machine shop).

GOE: 06.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

514.362-010 PIG-MACHINE OPERATOR (steel & rel.) alternate titles: mold-car operator

Operates pig machine to pour molten iron into molds to cast pig iron: Starts conveyor that positions mold under spout of pig-machine ladle. Moves controls to tilt ladle, allowing molten iron to flow into mold. Observes filling operation to detect sticking of molten iron to inside of molds, and signals LIME MIXER TENDER (steel & rel.) to spray additional lime on walls of molds. Performs maintenance, such as relining iron runners, repairing pig machine chains, and replacing broken molds, using handtools, bars, and jib crane.

GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

514.382-010 DIE-CASTING-MACHINE OPERATOR I (foundry)

Sets up and operates diecasting machine to cast parts, such as automobile trim, carburetor housings, and motor parts from nonferrous metals, such as zinc, aluminum, or magnesium: Lifts specified die sections into machine, using chain fall or hoist. Bolts die section in position and adjusts stroke of ram, using handtools. Connects water hose to cooling system of die. Preheats die sections with torch or electric heater. Turns valves and sets dial to regulate flow of water circulating through die and to control speed of machine, based on size and structure of part being cast and type and temperature of metal being used. Blows metal fragments from die surfaces, using airhose, and brushes lubricant into die cavity and onto plunger. Hand ladles molten metal into chamber of machine when operating cold-chamber machine. Pushes button to close and lock dies and activate plunger that forces molten metal into die cavities. Removes casting after dies open automatically, using pliers or tongs. Inspects casting for defects. May inspect castings, using fixed gauges. May dip castings in water to cool them. May load metal ingots into melting furnace, and transfer molten metal to heated reservoir of diecasting machine, using hand ladle.

GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

514.562-010 CENTRIFUGAL-CASTING-MACHINE OPERATOR III (foundry)

Operates centrifugal casting machine to cast artillery barrels: Grinds rough spots from inside of mold with grinding wheel mounted on end of long rod. Fills pits on inside surface of mold with refractory material. Fits refractory stoppers into ends of mold. Mounts pouring box, which serves as funnel for pouring melt from furnace into mold, on special frame at breech end of mold and fits spout of box through hole in stopper. Starts machine rotating at specified speed. Directs OVERHEAD CRANE OPERATOR (any industry) 921.663-010 in positioning portable furnace containing melt for pouring, and pushes electric controls to tilt furnace and pour melt into pouring box. Forces casting from mold, using hydraulic ram. Observes instruments and records data, such as temperature of mold before and after pouring and time required to complete pour. May operate machine from control board and be designated Casting-Machine-Control-Board Operator (foundry).

GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

514.567-010 MOLD WORKER (steel & rel.)

Removes steel ingots from molds after casting, and prepares molds for additional castings: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift mold, and knocks out ingot, using handtools and sledge. Marks casting code on ingot with paint or chalk. Examines mold and supporting plates for dirt, cracks, or breaks, and removes dirt and metal particles, using scraper, wire brush, and airhose. Mixes mold wash according to formula, and coats mold, using spray gun; or signals OVERHEAD CRANE OPERATOR (any industry) to dip mold in tar tank.

GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

514.582-010 VACUUM CASTER (foundry)

Operates vacuum casting machine to produce molten metal and pour castings of high density: Removes ceramic mold from preheat oven, using tongs, and places it on lift in lower air lock of machine. Closes and clamps air-lock door. Inserts premeasured metal charge into upper air lock. Starts pumps to create specified vacuum in air locks. Pulls levers that cause ram to push charge into melting pot in vacuum chamber. Turns on current and adjusts temperature controls of furnace. Determines when molten metal is ready to pour by observing color through glass-covered opening, or by measuring temperature of molten metal with pyrometer. Moves controls that cause lift to raise mold from lower air lock to vacuum chamber. Pulls lever that causes furnace to invert and pour molten metal into mold.

GOE: 06.02.10 STRENGTH: M GED: R2 M1 L2 SVP: 5 DLU: 77

514.584-010 INGOT HEADER (nonfer. metal; smelt. & refin.) alternate titles: billet header; casting header; header

Pours molten, nonferrous metals into solidifying ingots to compensate for shrinkage that occurs when ingots cool in their molds: Dumps specified amount of metal and flux into pot of gas- or oil-fired furnace. Reads temperature indicators and adjusts furnace flame to melt heading metal. Adds metal to molds to compensate for shrinkage, using ladle. Stencils identifying characters on top of solidified ingots, using special hammer tool. Opens mold and removes ingot, using tongs.

GOE: 06.04.10 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

514.662-010 CASTING OPERATOR (nonfer. metal)

Controls pouring station in which aluminum and aluminum alloys are cast into ingots: Regulates flow of molten metal from ladle or directly from melting furnace into trough feeding casting molds of casting unit. Regulates flow of metal from trough into molds by adjusting screw valves at bottom of trough. Controls cooling conditions of casting unit by maintaining constant level of metal in molds and regulating series of valves to spray water against molds to produce ingots of uniform crystalline structure. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to remove ingots.

GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

514.664-010 CUPOLA TAPPER (foundry)

Draws molten metal from cupola into ladles for pouring into molds to make castings: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 or POURER, METAL (foundry) to place ladle under cupola spout. Withdraws bott (clay plug) from taphole, using long iron rod, and allows molten

metal to flow into ladle. Inserts new plug on end of rod when ladle is full. Molds clay plugs by hand and affixes them to rods.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

514.664-014 TAPPER (nonfer. metal; smelt. & refin.)
Taps refining furnaces or reduction pots by one of following methods to pour molten slag or nonferrous metal, such as copper or aluminum, into molds, crucibles, or ladles: (1) Punches clay plug from taphole, using steel rod, to allow molten metal to flow into molds. Molds clay plugs and inserts them into taphole to stop flow of metal, using rod, or builds clay-retaining wall over taphole. Chips or burns away solidified slag and metal from taphole, using chisel-edged bar, oxygen lance, or by short-circuiting current from *bus bar* to taphole with steel rod. (2) Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to place pouring crucible near pot. Breaks hole in crust or electrolytic bath, using crowbar. Clamps siphon lid on crucible, and inserts other end of siphon into hole. Attaches airhose to siphon, and turns valve to siphon molten metal into crucible. Lowers anode into bath, using pulley to maintain its position beneath bath surface.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

514.667-010 CASTING-WHEEL-OPERATOR HELPER (smelt. & refin.)
Removes castings from molds by performing any combination of following duties: Brushes and sprays empty molds with water and bone ash or clay to prevent castings from sticking to mold. Chips and removes surplus bone ash, using chipping hammer and vacuum hose. Turns valves to adjust water sprays to cool molds or to loosen and drop castings from inverted molds. Pries castings from molds, using bar. Attaches crane hooks to lugs and signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift casting from mold. May mix water, bone ash, or clay to specified consistency for coating molds.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

514.667-014 PIG-MACHINE-OPERATOR HELPER (steel & rel.)
Assists PIG-MACHINE OPERATOR (steel & rel.) to cast pig iron: Observes pouring operations and signals PIG-MACHINE OPERATOR (steel & rel.) to stop flow of metal from ladle when molds overflow or mechanical malfunction occurs. Knocks pieces of iron and slag from ladle lips, pouring spout, or iron runners, using pole. Cleans slag and iron from pouring equipment and pig machine, using bars and sledges. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

514.667-018 SPOUT WORKER (smelt. & refin.)
Directs pouring of slag from ladle through spout into reverberatory furnace used for smelting: Raises furnace door, using lever or air hoist. Guides OVERHEAD CRANE OPERATOR (any industry) 921.663-010 by signal horn and lights in positioning ladle over spout and pouring slag. Sprays water on inner walls of spout to remove encrusted slag, or pries slag loose with iron bar. Shovels slag into car or furnace. Patches cracks in spout with moist clay, smoothing surface with hand or shovel. Scatters slurry of silica and clay evenly over inner surface of spout to decrease slag-crust during pouring operation. May guide DINKEY OPERATOR (any industry) into position over furnace, using hand signals. May record amount of slag dumped into furnace on analysis sheet.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

514.682-010 CASTING-WHEEL OPERATOR (smelt. & refin.) alternate titles: pourer
Operates rotating casting wheel to pour molten nonferrous metal, such as copper, lead, or aluminum into molds to form ingots: Moves control lever to rotate wheel and position mold under pouring spout of kettle or furnace. Pulls lever to remove stopper from bottom of kettle or to tilt ladle to allow metal to flow into mold. Rotates wheel to spot successive molds under spout. Observes process to ensure that castings are dumped and that molds are returned to starting position. May spray empty molds with coating to prevent metal from sticking to mold [CASTING-WHEEL-OPERATOR HELPER (smelt. & refin.)]. May skim slag or dross from metal in furnace with rake or hoe [FURNACE HELPER (nonfer. metal; smelt. & refin.)]. May divert stream of metal into bucket, using hose, to obtain samples for laboratory. May operate pump to force lead from kettle into mold. May skim impurities, using spatula or spoon, and solidify molten lead by regulating flow of water in water-cooled mold. May observe furnace gauge to verify that temperature of molten metal meets specifications. May change pouring spout, using chain hoist and handtools. May operate casting-wheel machine that advances molds automatically at predetermined rate.
GOE: 06.02.10 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

514.682-014 PRESS OPERATOR, CARBON BLOCKS (smelt. & refin.)
Operates press that forms carbon paste into anodes used in metal-reduction pots: Pushes panel buttons to activate hopper, chain conveyor, cooling chamber belt, and power rolls. Turns valve to regulate flow of water to carbon cooling chamber. Observes signal light on hopper which indicates hopper is filled and paste is discharged into mold. Starts mechanical vibrator to pack mix in mold. Moves levers to synchronize rotation of index table with dropping of ram to press mix into blocks. Adjusts ram stroke to press carbon block to specified size, using wrench. Stops press when warning light indicates malfunction or when mold is overheated. Removes rejects from conveyor, using pneumatic ram.
GOE: 06.02.18 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

514.684-010 CASTER (smelt. & refin.) alternate titles: metal pourer
Casts nonferrous metal into pigs and transports them to storage, using handtools and forklift: Secures hook to eye on bottom of crucible and signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to position crucible and pour metal into stationary molds. Turns handwheel and moves levers to regulate flow of metal from furnace into conveyor molds. Skims slag from surface of pigs into dross buggy, using dross hoe, metal rake, or carbon stick. Installs and changes stencils in automatic stenciler, or stamps identifying information on pigs with hammer and die. Removes pigs from mold, using crowbar, or sets pins and hooks chain for crane to lift pigs from molds. Shovels scrap metal into buggy for return to furnace. Moves pigs to storage area, using forklift. Inserts fire clay on end of rod into taphole to seal furnace.
GOE: 06.04.24 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

514.684-014 LADLE POURER (smelt. & refin.)
Casts refined lead into molds moving along conveyor belt: Connects pipelines from kettle to ladle, and preheats pipes, valves, and ladle with gas burner to prevent hardening of metal. Controls flow of metal into ladle, and pours lead into molds by tilting ladle. Skims oxide from surface of metal in molds.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

514.684-018 NOZZLE-AND-SLEEVE WORKER (nonfer. metal)
Removes, replaces, and adjusts nozzles and cylinders (sleeves) of diecasting machines: Disconnects and removes gooseneck (spout) from gooseneck machine, using wrenches, chain falls, and hoist. Knocks nozzle loose with bar and hammer. Drives replacement nozzle into gooseneck. Reinstalls gooseneck in metal pot, aligning nozzle with gate according to scale measurements. Removes plunger from sleeve of cold-shot machine, using wrenches, and pushes defective sleeve from machine. Installs new sleeve by inserting holding pin, making screw adjustments, and taking scale measurements. Periodically inspects nozzle and sleeve adjustments along machine line. Assists other workers in adjusting, installing, and removing diecasting machine nozzles and cylinders. Keeps records of sleeve and nozzle adjustments and replacements. May replace movable gooseneck setup with new parts.
GOE: 06.04.24 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

514.684-022 POURER, METAL (foundry) alternate titles: ladle handler
Pours molten metal from ladle into molds to produce metal castings: Tilts ladle or opens pouring spout by turning handwheel or moving levers to pour metal into sand molds. Skims slag off molten metal, using strainer device, or tilts ladle to dump out slag. May move ladle from cupola or furnace to work station, manually or using overhead monorail or chain fall. May be designated according to type of ladle used as Pourer, Buggy Ladle (foundry); Pourer, Bull Ladle (foundry); Pourer, Crane Ladle (foundry); Pourer, Crucible (foundry).
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

514.685-010 CENTRIFUGAL-CASTING-MACHINE OPERATOR I (foundry)
Tends centrifugal casting machine that casts tubular metal products, such as pipes, brakedrums, or bushings: Lays specified mold on spinning mechanism. Brushes dirt and metal fragments from inside of mold. Places and fastens cover on ends of mold. Preheats mold with torch. Starts machine and sprays insulation on inside surface of rotating mold. Pours molten metal into mold, using hand ladle. Allows mold to spin for specified time to solidify metal against mold walls. Unfastens mold cover and removes casting, using tongs or hydraulic ram. May set machine controls to rotate mold at specified speed.
GOE: 06.04.10 STRENGTH: H GED: R3 M1 L1 SVP: 3 DLU: 77

514.685-014 CENTRIFUGAL-CASTING-MACHINE OPERATOR II (foundry)
Tends one station on indexing-type centrifugal casting machine, performing any combination of following tasks involved in casting metal: Removes dirt and metal fragments from mold, using brush, water, or airhose. Fastens cover on end of mold. Starts mold rotating, and sprays insulation on inside surface of mold. Pours specified amount of metal into mold, using hand or crane ladle. Moves levers on tilting furnace to control flow of metal into pouring ladle. Removes cover on end of mold, and pulls casting from mold, using tongs. May be designated according to task performed as Dumper, Mold Cleaner (foundry); Puller (foundry); Sprayer (foundry).
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

514.685-018 DIE-CASTING-MACHINE OPERATOR II (foundry)
Tends diecasting machine that casts parts, such as automobile trim, carburetor housings, and motor parts from nonferrous metals, such as zinc, aluminum, or magnesium: Turns valves to regulate flow of water circulating through dies. Blows metal fragments from die surfaces, using airhose, and brushes lubricant over die cavity and plunger. Ladles molten metal into chamber by hand when using cold chamber machine. Pushes button to close and lock dies and activate plunger that forces molten metal into die cavities. Removes casting after dies open automatically, using tongs or pliers. Inspects casting for defects, such as cracks or bubbles. May measure casting, using fixed gauges. May dip castings in water to cool. May regulate speed of machine.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

514.685-022 LIME MIXER TENDER (steel & rel.)
Tends mixing machine that mixes lime and water, and sprays mixture on interior of molds to prevent cast iron from sticking to molds: Shovels lime into mixing machine, starts machine, and opens valve to allow water to enter ma

chine to obtain mixture of specified consistency. Cleans molds, using airhose. Starts pump of spray gun, and sprays molds. Observes coating on molds, and adjusts spray gun and consistency of mixture to obtain specified coating. Sprays water on molds containing molten iron to cool metal, using hose. Removes stuck pigs from molds, using bar.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

514.685-026 TUBE-CLEANING OPERATOR (foundry)
Tends machine that extracts core pipe from interior of tubular castings: Strikes end of core pipe with sledge to loosen baked sand between casting and core pipe. Inserts end of core pipe through holding block and secures pipe be-tween jaws set on dolly. Starts machine that pushes and pulls dolly along racks, pulling out core pipe while casting strikes against holding block. Cleans casting, using airhose and wire brush.
GOE: 06.04.02 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

514.687-010 CASTING INSPECTOR (foundry) alternate titles: casting tester; final inspector; soft-iron inspector
Inspects metal castings for dimensional accuracy and surface defects: Meas-ures dimensions of casting, using fixed gauges. Examines casting for defects, such as cracks and blowholes. Separates and marks defective castings according o salvage operation required. May chip surplus metal from casting, using hammer and chisel. May tap casting with hammer to determine from sound if casting has been heattreated or to detect defects, such as cracks or thin walls.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

514.687-014 CASTING-HOUSE WORKER (nonfer. metal)
Assists aluminum foundry workers by performing variety of manual tasks. Skims dross from furnaces. Loads handtrucks with ingots or sorted scrap. May ort and weigh metal, charge furnaces, and transport metal. May mark heat umber on billets. May operate tier-lift truck to transport materials.
GOE: 06.04.24 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

14.687-018 CASTING-OPERATOR HELPER (nonfer. metal)
Assists CASTING OPERATOR (nonfer. metal) in casting aluminum alloys nto ingots: Places distributing trough between furnace taphole and mold. Posi-ions baffle plates, screens, and control pins in trough, using handtools. Takes ample of molten metal for subsequent analysis. Skims dross off molten alu-minum in holding furnace, using drag rake. Inserts thermocouple into mold and ecords temperature of ingot. Examines ingot for cracks, using reflectoscope. tencils identification numbers on ingots. Hooks cable to ingot for removal by OVERHEAD CRANE OPERATOR (any industry) 921.663-010. Performs other uties as described under HELPER (any industry) Master Title.
OE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

15 CRUSHING AND GRINDING OCCUPATIONS

This group includes occupations concerned with reducing ore or concentrate granules, grits, powder, paste, or pulp, or otherwise changing it from larger smaller particles by such means as compression, smashing, cutting, grinding, any combination of these methods.

15.130-010 MILL SUPERVISOR (smelt. & refin.) alternate titles: supervisor, grinding; supervisor, ore dressing
Supervises and coordinates activities of workers engaged in crushing, grind-g, and concentrating ore preparatory to further processing or shipment: Ob-rves meters, gauges, recording instruments, and operation of machines and uipment to detect malfunctions, faulty operation by worker, or need for re-irs. Orders adjustments and repairs to restore machines and equipment to pro-iction specifications. Directs dismantling, and inspects parts to determine use of malfunction or breakdown. Demonstrates and explains machine oper-ion and processes to new workers. May determine time, duration, and se-ence of utilizing ore from silos, and rates of extraction to attain blend of ore ecified on work order. Performs duties as described under SUPERVISOR ny industry) Master Title.
OE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

5.132-010 CRUSHER SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in transporting, ushing, and storing ore, skimmings, and other residue. Trains workers in op-ation of equipment. Performs duties as described under SUPERVISOR (any dustry) Master Title.
OE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

5.382-010 GRINDING-MILL OPERATOR (mine & quarry; smelt. & refin.)
Operates panelboard to control machinery and equipment, such as conveyor lts, vibrating feeders, rod and ball mills, centrifugal separators, distributors, gnetic separators, and pumps, to grind ore and scrap metal and to separate n particles from gangue: Sets and adjusts automatic controls on panel to reg-ate feed flow of conveyors, flow of lubricant to rod and ball mill bearings, d flow of water to mills and separators. Starts grinding and separating ma-inery and equipment. Observes lights, dials, and gauges, and turns levers or shes buttons on panel to adjust operating conditions, such as temperature of ll bearings, amount of electric current flowing through mill drive motors, and e of ore and scrap metal flowing from feeder conveyors. Records number machinery breakdowns and repairs, number of rods and balls charged into lls, and amount of ore and scrap metal processed. May pass hand magnet over sludge to determine extent of separation of iron particles from gangue by magnetic separators.
GOE: 06.02.08 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

515.567-010 WEIGHER-AND-CRUSHER (smelt. & refin.)
Weighs and crushes zinc ore and other materials, using platform scale, crusher, and handtools: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lower loaded bucket of zinc ore onto platform scale. Balances scale beam. Records weight of materials and signals OVERHEAD CRANE OPERATOR (any industry) to dump them into crusher. Starts vibrating screens that crush ore and separate it according to size. Shovels unscreened ore back into crusher. Scoops samples of ore from conveyor belt for laboratory analysis. Opens bin gate to fill bucket with sintered ore. Levels ore in bucket, using bar and shovel. Signals OVERHEAD CRANE OPERATOR (any industry) to remove filled bucket and to replace it with empty one. Moves empty or filled buckets on cars about yard and plant, using power-driven winch.
GOE: 06.04.08 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

515.585-010 SCALE-RECLAMATION TENDER (smelt. & refin.)
Tends conveying and grinding equipment that reclaims aluminum-hydrate scale: Moves controls to regulate conveyor flow of hydrate scale to hammer mill and rodmill. Turns valves to add plant liquor to rodmill to maintain specified slurry density. Clears hoppers, pan feeders, and conveying equipment of accumulated materials, using bar, hammer, or shovel. Cleans conveyors, idlers, and pulleys, using scrapers and cleaning tools. Turns valves and starts pumps to switch product flow through auxiliary units. Catches product samples. Keeps operating log. Lubricates valves and adjusts packing glands to prevent leaks.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

515.685-010 BATCH MAKER (nonfer. metal; steel & rel.)
Tends equipment that mills and recovers powdered metal used in powder metallurgy: Pours specified amount of powder into ball mill. Screws covers on drum and straps drum to ball mill machine rack. Starts motor that rotates drum to grind powder by tumbling action of metal balls. Inserts filter bag and sieve in centrifuge drum. Opens water valve to flush milled powder from mill through sieve and filter bag into centrifuge. Starts centrifuge that separates water from powder. Pours extracted powder into trays for drying. Charges ball mill with additional balls as specified.
GOE: 06.04.10 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

515.685-014 CRUSHER TENDER (smelt. & refin.) alternate titles: ore crusher
Tends machine that breaks ore, skimmings, furnace residue, clay pieces, potroom butts, or green carbon scrap into smaller sizes for further processing: Starts crusher. Regulates flow of materials into crusher from conveyors, chutes, or bins. Prods large lumps with bar to force them through crusher. Breaks oversize lumps with sledgehammer. Maintains uniform flow of crushed materials to screens or roll crushers for further sizing by controlling movement of conveyor belt or feeder. Cleans, lubricates, and makes minor repairs to crusher. May remove scrap wood or iron by hand or with an electromagnet. May operate vibrating screens to separate materials within size ranges. May select samples of materials, using shovel or mechanical sampler. May tend control panel to monitor crushing machines that clean anode assemblies and be designated Anode-Assembly Cleaner (smelt. & refin.) I.
GOE: 06.04.08 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

515.685-018 STAMPING-MILL TENDER (smelt. & refin.)
Tends stamping mills that crush ore to specified fineness: Turns valve to regulate flow of ore and water over plates beneath stamps. Examines crushed ore at outflow of mill to determine degree of fineness. Adjusts raising and dropping sequence of stamps. Replaces broken stamps, plates, and shafts.
GOE: 06.04.02 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

515.686-010 BATTERY-WRECKER OPERATOR (nonfer. metal)
Loads conveyor of battery-crushing machine: Lifts batteries from stockpile. Loads conveyor of machine that crushes batteries and separates plastic, metal, and lead-bearing acid. Listens for machine jams and other malfunctions. Dislodges jams, using metal bar or air compressor. Notifies designated worker of major malfunctions. May operate industrial truck to move pallets of batteries from storage area to work area.
GOE: 06.04.40 STRENGTH: V GED: R2 M1 L1 SVP: 2 DLU: 86

515.687-010 HAMMER-MILL OPERATOR (smelt. & refin.) alternate titles: shredder operator
Prepares iron and steel machine-tool cuttings for use in making ferrosilicon by selecting scraps of desired thickness and breaking them up in hammer mill.
GOE: 06.04.24 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

518 MOLDERS, COREMAKERS, AND RELATED OCCUPATIONS

This group includes occupations concerned with making molds or cores to be used in casting metal in foundries.

518.361-010 MOLDER (aircraft mfg.; concrete prod.; foundry) alternate titles: sand molder
Forms sand molds to fabricate metal castings, using patterns or match plates, flasks, handtools and power tools, following instructions and applying knowl-

edge of variables, such as metal characteristics, molding sand, pattern contours, and pouring procedures. Places flask and drag onto *molding board* and positions pattern inside drag. Sprinkles or sprays parting agent onto pattern and flask, to facilitate removal of pattern from mold, and positions reinforcing wire in flask. Sifts sand over pattern, using riddle, and compacts sand around pattern contours. Shovels and packs sand into flask, using hand or pneumatic ramming tools. Inverts drag, positions cope half of pattern and flask onto drag, and repeats sand molding operation to imbed pattern into cope. Lifts cope from drag and removes pattern. Cuts runner and sprue hole into mold and repairs damaged impressions, using handtools, such as slick, trowel, spoon, and sprue cutter. Positions specified cores into drag and reassembles cope and drag. Moves and positions workpieces, such as flasks, patterns, and bottom boards, using overhead crane, or signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to move and position workpieces. Pours molten metal into mold, manually or using crane ladle, or directs POURER, METAL (foundry) 514.684-022 to fill mold. May form and assemble slab cores around pattern to reinforce mold, using handtools and glue. May operate ovens or furnaces to melt, skim, and flux metal. May form molds at bench and be designated Molder, Bench (concrete prod.; foundry) or form molds on floor and be designated Molder, Floor (foundry).
GOE: 06.01.04 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 87

518.361-014 MOLDER APPRENTICE (aircraft mfg.; concrete prod.; foundry) alternate titles: sand-molder apprentice

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.01.04 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

518.361-018 MOLDER, SWEEP (foundry) alternate titles: floor molder, sweep method

Makes molds, using sweep method which is adaptable only in cases where required casting is symmetrical: Assembles drag, flask, bottom plate, and spindle (projects through center of flask). Shovel sand into flask, and compacts it by hand ramming. Attaches sweep (board with bottom edge cut to shape corresponding to casting surface) and rotates it about spindle, until mold impression (usually convex) is swept (scraped) to desired shape. Places cope flask on drag, and shovels and compacts sand over drag mold which serves as pattern for cope mold. Removes cope mold. Scrapes drag mold with smaller sweep to reduce size of mold. Smooths and shapes mold surface, using slick and trowel. Assembles mold sections for pouring. When making parts of large floor or pit mold, usually rectangular in shape, with sides parallel and same impressions running full length of part of mold, draws sweep back and forth along guides to scrape out desired impressions.
GOE: 06.01.04 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

518.380-010 SETTER, MOLDING-AND-COREMAKING MACHINES (foundry) alternate titles: pattern setter

Sets up and adjusts molding and coremaking machines, such as roll-over, squeeze, coremaking, and shell molding: Obtains specified pattern, moves pattern to work station manually or using hoist, and bolts it to bed of mold or core forming machine, using wrenches. Adjusts stops, height of squeeze or roll-over mechanism, and height of sand hopper according to size of pattern or core, using handtools. Adjusts timing cycle of machines to specified settings. Replaces worn parts, such as air lines, gaslines, gaskets, and core box vents, using handtools.
GOE: 06.01.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

518.381-010 BENCH-MOLDER APPRENTICE (jewelry-silver.) alternate titles: sand-caster apprentice

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.01.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

518.381-014 COREMAKER (foundry) alternate titles: coremaker, experimental

Makes sand cores used in molds to form holes or hollows in metal castings: Cleans core box with blast of compressed air. Dusts parting sand over inside of core box to facilitate removal of finished core. Partially fills core box with sand by pulling cord that releases sand from overhead chute or by using hands or shovel. Compacts sand in core box, using hands, hand rammer, and air rammer. Bends reinforcing wires by hand, and inserts them in sand. Fills core box and rams sand in tightly. Inverts core box onto metal plate, and lifts box from sand core. Patches cracked or chipped places on core and smooths core surfaces, using spoon and trowel. May bake cores to harden them. May assemble cores. May work at bench making small cores and be designated Coremaker, Bench (foundry); or make large cores on floor of foundry and be designated Coremaker, Floor (foundry).
GOE: 06.01.04 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

518.381-018 COREMAKER APPRENTICE (foundry)

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.01.04 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

518.381-022 MOLDER, BENCH (jewelry-silver.) alternate titles: sand caster

Casts metal molds to form jewelry articles: Forms plaster mold of model. Builds sand mold in flask, using plaster mold as pattern. Places flask in furnace or heats flask with blowtorch to dry and harden sand mold. Removes plaster mold from flask. Melts metal in crucible or furnace, and pours molten metal into channel of sand mold to cast metal mold. Opens flask and removes metal mold when metal has hardened, using pliers or tongs.
GOE: 06.01.04 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

518.484-010 PLASTER MOLDER II (foundry)

Forms plaster molds, used to make metal castings, using molder's handtools, patterns, and flasks: Mixes plaster powder and water according to specified formula. Places cope and drag on molding table. Places drag half of pattern in drag. Pours liquid plaster into drag, removes excess plaster, using straightedge, and allows mold to harden. Assembles cope half of pattern to drag half of pattern in mold. Places cope on drag and makes depressions in plaster around drag pattern to ensure accurate joining of mold halves for casting. Brushes parting agent on surfaces of mold, pattern, and flask, and pours liquid plaster into cope. Separates cope and drag after specified time and removes pattern. Repairs cracks and broken edges of mold, using molder's handtools, such as spoon, trowel, and slick. May cut gates and risers in mold after mold is baked. May position cores in drag and assemble mold. May pour molten metal into molds, using hand ladle. Makes plaster cores by pouring plaster in core box and clamping box shut. May cast plaster molds from rubber molds, spraying parting agent on mold face and pouring plaster into drag and cope.
GOE: 06.02.30 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

518.664-010 MOLD MAKER (smelt. & refin.)

Forms molds used in casting copper: Assembles metal casting frame on flat car, using wrench. Seals frame with fire clay, using trowel, and sprays interior of frame and core with bone ash to prevent adherence of molten metal to core. Pushes car under pouring spout of ladle. Moves lever to tilt ladle of molten copper and fill frame to indicated level. Pulls lever to lower core, attached to hydraulic press ram, to imbed core in molten copper. Turns valve to circulate water through core to solidify copper. Withdraws core when mold cools, dismantles frame, and removes mold.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L2 SVP: 4 DLU: 77

518.682-010 MACHINE MOLDER (foundry) alternate titles: machine line molder

Operates molding machine to form sand molds used in production of metal castings: Assembles flask, pattern, and *follow board* on molding table of machine. Sifts sand over pattern, using riddle, and feels flask with sand by opening hopper or using shovel. Packs sand around pattern contours, using ramming tool or pneumatic hammer. Starts machine that compacts sand in flask to form mold. Cuts pouring spout and vents in mold, using sprue cutter and wire. Lifts cope half of flask off drag half and removes pattern. Cleans cavity of mold, using airhose. Positions cores in drag, and assembles cope and drag. May set cores in mold cavity. May install pattern on bed of machine, and adjust pressure of ram. May be designated by machine operated as Machine Molder, Roll-Over (foundry); Machine Molder, Squeeze (foundry); or product molded as Molder, Fitting (foundry).
GOE: 06.04.32 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

518.683-010 SAND-SLINGER OPERATOR (foundry)

Controls sand-slinging machine to pack sand in mold flask: Engages controls to move machine along tracks and to position impeller head over flask. Starts machine, and moves controls to guide impeller head back and forth to direct flow of sand into flask. Cleans and oils machine. May replace worn parts in impeller head, using handtools.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

518.684-010 CORE SETTER (foundry)

Positions cores in drag of sand mold: Examines mold and cores for defects, such as cracks and broken surfaces, before mold is closed. Verifies spacing between mold and cores, using gauges. May assist in closing mold. May operate hoist to move and position large cores. May assemble groups of cores in fixture of automatic core-setting machine.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

518.684-014 COREMAKER, PIPE (foundry)

Makes clay cores around which ferrous and nonferrous pipe is cast: Clamps rod in bench vises so that it can be rotated. Wraps rod with paper, straw, or jute, tying it firmly in place with twine. Mixes mud, sand, and loam to form clay. Spreads clay over wrapping, adding molasses to make mixture cohesive and working coating by hand so that it is smooth and even. Spreads core blacking over core and places it in drying oven for specified time. Removes dried core and applies second coating to bring core to specified diameter. Spreads blacking on core and returns it to oven for final drying.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

518.684-018 MOLD CLOSER (foundry) alternate titles: core mounter; core setter; finish molder; flask fitter; mold finisher

Cleans and assembles foundry molds to prepare them for pouring: Cleans inside surface of sand molds with airhose. Positions cores in drags. Thrusts rod into ventholes to remove obstructions. Fits and clamps cope and drag together to form flask. Places runner cup over pouring hole. May patch and smooth damaged portions of mold, using spoon or trowel. May assist in pouring metal into molds. May remove castings from molds.
GOE: 06.04.32 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

518.684-022 WAX-PATTERN ASSEMBLER (foundry)

Assembles wax components of patterns used in lost-wax casting process: Melts edges of wax components, using heated knife, and manually positions

and joins components. Repairs surface defects of patterns, such as holes and indentions, and smooths and seals joints, using wax and heated knife.
GOE: 06.02.24 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

518.684-026 WAX-PATTERN REPAIRER (foundry) alternate titles: inspector
Repairs wax patterns used in lost-wax casting process: Inspects patterns for defects, such as cracks, seams, broken edges, and excess wax. Seals cracks, seams, and joints, removes excess wax, and builds up damaged edges, using wax and heated knife.
GOE: 06.02.24 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

518.685-010 CORE-OVEN TENDER (foundry)
Tends baking oven that hardens and strengthens green sand cores used in casting metal: Loads cores on racks, trays, or carts, and pushes them into oven. Lights gas- or oil-fired furnace and turns valves to obtain specified temperature; or sets thermostat and closes switch to heat element in electric furnace. Closes oven door and allows cores to bake for specified time. Opens oven door and removes cores. May adjust baffle plates that direct flow of heat in oven.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

518.685-014 COREMAKER, MACHINE I (foundry) alternate titles: core stripper
Tends turnover draw-type coremaking machine that makes sand cores for use in casting metal: Clamps core box over die on front table of machine, and partly fills core box with sand from overhead chute, or by using hands or shovel. Depresses pedal to open compressed-air valve that causes table to rise and fall with series of jolts, to compress sand in box. Positions reinforcing wires in sand, fills box with sand, and repeats jolting. Tamps sand into core box with hand or pneumatic tool. Removes excess sand from top of core box with hands or straightedge and clamps metal plate to top of box. Pulls lever to roll front table over and deposit box top down on rear table. Pushes rear table down to withdraw core from core box and lifts core from machine.
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

518.685-018 COREMAKER, MACHINE II (foundry) alternate titles: tube coremaker
Tends conveyor-screw coremaking machine that extrudes sand cores having uniform cross section: Installs specified core tube and conveyor screw in machine, using handtools. Shovels sand into hopper, and tamps it down by hand. Positions core plate at opening of core tube, and starts motor-driven or hand-operated conveyor screw which forces sand through core tube and onto core plate. Cuts core at core tube opening when core fills plate. May tend oven to bake cores. Cuts baked cores to specified lengths with saw.
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

518.685-022 COREMAKER, MACHINE III (foundry) alternate titles: core-blower operator
Tends blower-type coremaking machine to produce sand cores: Removes sand and particles of dirt from pattern with compressed air or brush. Places core box over pattern on bed of machine. Pulls lever or depresses pedal to blow and compact sand in core box. Places plate or drier on top of core box and turns box over. Lifts core box from core and lifts core from machine. May position reinforcing wires in core box before blowing in sand. May perform only one of above operations on revolving, multiple station, blower-type coremaking machine. May tend automatic blower-type coremaking machine and clean, glue, and rack cores as they are ejected from machine. May tend machine equipped with double core box and glue and clean cores from one box while machine forms and cures cores in other core box.
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

518.685-026 SHELL MOLDER (foundry)
Tends machine that makes shell molds used to produce metal castings: Starts machine that automatically forms and cures shell. Strips cured shell halves from machine and positions shell half on fixture of mold-closing machine. Brushes glue around edges of shell half. Positions remaining shell half on top of lower half and activates ram that exerts pressure on shell until glue has set. May glue and assemble shell halves by hand. May clamp, wire, or bolt shell halves together. May bolt pattern and core box to bed of machine. May produce cores on shell making machine and be designated Shell Coremaker (foundry).
GOE: 06.04.17 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

518.685-030 SHELL-MOLD-BONDING-MACHINE OPERATOR (foundry) alternate titles: bonder; bonding-machine operator; shell mold bonder
Tends machine that bonds cope and drag together to form completed shell mold: Turns dials of shell-mold bonding machine to heat upper pressure plate and set pressure stroke of ram as specified. Positions drag onto lower pressure plate of machine. Fills vibrator pan with bonding agent, and pushes button to sift bonding agent onto edge of drag. Positions cope on drag, and pushes button or pulls lever which pushes hot plate onto cope to heat and compress cope to drag. Knocks out sprue holes with iron rod. Directs airhose onto mold to blow out loose sand. May tend machine that automatically releases pressure after specified period of time. May assemble cores to drag and cope.
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

518.687-010 CORE CHECKER (foundry) alternate titles: core inspector
Verifies dimensions and shapes of cores for conformance to specifications, using straightedge, gauges, and calipers: Places cores in fixtures, manually or using hoist. Moves straightedge along surface of cores to verify contours. Verifies dimensions, using gauges and calipers. Records tally of inspections on standard forms. May file high spots from cores. May repair defects, such as cracks and broken edges. May clean flask from cores, using wire scrapers or files. May inspect molds and be designated Mold Checker (foundry).
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

518.687-014 FOUNDRY LABORER, COREROOM (foundry) alternate titles: core fitter; coremaker helper; core paster
Performs any combination of following tasks involved in coremaking: Pastes core sections together to form completed core. Brushes, dips, or sprays solution, such as graphite, on cores to produce smooth finish. Carries and loads cores into oven. Piles cores on racks for drying. Carries sand to coreroom. Forms core reinforcing rods and wires into specified shape by hand or by machine. Pulls wires and rods from finished castings, using pliers, hammer and chisel, and special hooks. Dresses cores, using handtools or power tools, such as files, scrapers, and grinding wheel. May fill cracks in surface of core with putty or patching sand, using putty knife.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

518.687-018 MOLD-MAKER HELPER (smelt. & refin.)
Assists MOLD MAKER (smelt. & refin.) in forming molds used in casting copper: Measures and marks pouring level on insides of mold to obtain castings of specified weights, using rules or gauges. Sprays inner surface of iron plugs with lampblack to prevent copper from adhering to them. Fastens plug in bottom of mold with locking pin. Sprays molds with steam or hot water to heat them to specified casting temperature. Cleans splashed copper from mold car, using hammer and chisel. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

518.687-022 WAX-PATTERN COATER (foundry) alternate titles: dipper
Covers wax foundry patterns with coating compound to form shell mold used in lost-wax casting process: Dips pattern in suspension of silica sand and chemical binder. Coats pattern by sifting materials, such as sand or aluminum oxide, onto pattern; or places patterns in tumbling barrel, containing short fibers, to strengthen coating. Repeats coatings as specified to form shell. Examines pattern for evenness of coating. Places coated pattern clusters on cart and pushes cart into drying room, or places shell molds on conveyor of tunnel oven to dry mold interiors. May place patterns in steam-pressure vessel to melt pattern wax from shell.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

519 ORE REFINING AND FOUNDRY OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with refining ore, ore concentrate, pig, or scrap metal, and casting metal in foundries.

519.130-010 CELL-FEED-DEPARTMENT SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in concentrating, flaking, and drying magnesium chloride preparatory to obtaining magnesium by electrolysis. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

519.130-014 SAMPLER, HEAD (smelt. & refin.)
Supervises and coordinates activities of workers engaged in crushing, drying, screening, and testing samples of ores preparatory to assaying them. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

519.130-018 SUPERVISOR, LEAD REFINERY (smelt. & refin.)
Supervises and coordinates activities of workers engaged in refining lead, casting it into ingots, and preparing ingots for shipment. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

519.130-022 SUPERVISOR, REVERBERATORY FURNACE (smelt. & refin.)
Supervises and coordinates activities of workers engaged in operating reverberatory furnaces and casting machines to smelt and cast copper: Observes gauges and color of flames in furnace and adjusts valves to ensure combustion of fuels. Regulates furnace dampers to maintain specified temperatures. Observes color and surface characteristics of bath to determine pouring temperatures and oxygen content of copper. Inspects operation of casting wheels to ensure uniform product. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

519.130-026 SUPERVISOR, SINTERING PLANT (smelt. & refin.)
Supervises and coordinates activities of workers engaged in moving, mixing, sintering, and crushing ore concentrates to remove impurities preparatory to smelting process. May supervise workers engaged in calcining phosphate rock and be designated Supervisor, Calcining (smelt. & refin.). Peforms duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

519.130-030 SUPERVISOR, URANIUM PROCESSING (smelt. & refin.)
Supervises and coordinates activities of workers engaged in processing uranium ore to recover uranium oxide. Trains workers in setup and operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

519.131-010 FOUNDRY SUPERVISOR (foundry)
Supervises and coordinates activities of workers engaged in making cores and molds, in charging, operating, and tapping furnaces, in pouring molten metal into molds, and in chipping, grinding, and sandblasting castings: Examines materials and products at various stages of processing for conformance to specifications. Observes machines and equipment for malfunction and orders adjustments or repairs, or directs workers to make adjustments or repairs. Trains workers in foundry processes and in operation of machines and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to part of process supervised as Casting Supervisor (foundry); Coremaking Supervisor (foundry); Cupola-Melting Supervisor (foundry); Finishing Supervisor (foundry); Mold-Making Supervisor (foundry); Shell-Core-And-Molding Supervisor (foundry); Wax-Room Supervisor (foundry).
GOE: 06.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

519.131-014 MILL-LABOR SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in maintaining ball mills, classifiers, flotation machines, and other ore-dressing equipment, and in cleaning offices, rest rooms, and work areas. Performs other duties as described under SUPERVISOR (any indusiry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

519.132-010 SUPERVISOR, BLAST FURNACE (steel & rel.) alternate titles: blower, blast furnace
Supervises and coordinates activities of workers engaged in operation of blast furnace to produce molten pig iron: Directs workers in charging furnace with specified amounts of raw materials, such as iron ore, coke, and limestone. Observes color of molten metal through tuyeres, or reads pyrometer and orders changes in furnace temperature and pressure. Estimates amounts of ferrosilicon, manganese, and phosphorous to add to molten metal to obtain specified type of pig iron. Directs workers in flushing and tapping furnace and in positioning ladles to receive molten metal. Observes color of molten metal flowing in runners during casting operations to determine quality of iron. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

519.132-014 SUPERVISOR, BLAST-FURNACE-AUXILIARIES (steel & rel.)
Supervises and coordinates activities of workers engaged in unloading, crushing, screening, blending, and sintering iron ore. Directs workers in stockpiling materials, such as sinter cake, manganese, and limestone for blast furnace operations. Trains workers in operation of equipment. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

519.132-018 SUPERVISOR, CELL OPERATION (smelt. & refin.)
Supervises and coordinates activities of workers engaged in electrolytic refining of magnesium and in making hydrochloric acid from chlorine freed during refining process. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

519.132-022 SUPERVISOR, SOLDER MAKING (nonfer. metal)
Supervises and coordinates activities of workers engaged in refining scrap solder and tin and lead alloy with refined scrap to make solder: Directs workers in weighing tin, lead, and scrap solder and in refining operations. Molds and weighs test piece to compute ratio of tin and lead in refined metal. Computes amounts of tin, lead, and refined solder to be used in making solder according to formula. Directs workers in melting and mixing metals in melting pot, molding solder, weighing, recording weights, and packing. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

519.134-010 POT-LINING SUPERVISOR (smelt. & refin.)
Supervises and coordinates activities of workers engaged in relining aluminum-reduction pots with carbon paste to form cathode. Inspects work to verify conformance to standards. Trains new workers in job duties. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

519.137-010 SUPERVISOR, MOLD YARD (steel & rel.)
Supervises and coordinates activities of workers engaged in cleaning and coating molds used to cast steel ingots, and in relining and repairing mold covers (hot tops). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

519.137-014 SUPERVISOR, SCRAP PREPARATION (steel & rel.)
Supervises and coordinates activities of workers engaged in various duties, such as unloading scrap material from cars, sorting different grades of scrap into piles, burning or shearing scrap to charging-box size, and handling and storing ingots. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

519.362-010 NICKEL-PLANT OPERATOR (smelt. & refin.)
Controls electrolysis tanks to purify electrolyte used in copper refining by removing copper, arsenic, and nickel: Places lead anodes and copper cathode starting sheets in tanks and turns valves to fill tanks with impure electrolyte. Switches on current and starts circulation pumps to remove copper from solution and deposit it onto cathode. Pumps solution into high-voltage tank system to deposit arsenic on cathodes. Pumps electrolyte from high-voltage tanks into evaporators that concentrate solution to specified specific gravity. Turns valves to drain condensed solution into settling tanks and to recover acid after nickel sulfate has settled.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

519.362-014 TANK-HOUSE OPERATOR (smelt. & refin.)
Controls equipment to purify copper by electrorefining: Signals MONORAIL CRANE OPERATOR (any industry) to lower impure copper anodes into tank filled with electrolyte. Immerses copper starter sheets (cathodes) into tank. Passes steel rod between electrodes to break off lumps which might cause short circuit and to verify specified clearance between electrodes. Examines, cleans, and tightens electrical connections, using steel wool and handtools. Turns on electrical current, and verifies voltage, using voltmeter. Measures density of electrolyte, using hydrometer. Observes deposition of copper on cathodes, and signals MONORAIL CRANE OPERATOR (any industry) to remove coated cathodes and depleted anodes from tank after specified time. Inspects tanks for defects, such as loose connections, leaks, deteriorated suspension bars and fittings, clogged floats, and drainage connections. Repairs or replaces parts, or notifies maintenance department. May cover lead sheets with primary coat of copper to make cathodes and be designated Starting-Sheet-Tank Operator (smelt. & refin.). May operate equipment that purifies copper through electrolysis without anodes and be designated Electro-Winning Operator (smelt. & refin.).
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

519.387-010 MANOMETER TECHNICIAN (smelt. & refin.)
Tests pulverized material and computes specific gravity, using manometer tube: Collects mill samples, weighs specified amount of pulverized material, and pours it into cylinder and taps powder into compact mass. Raises mercury level in left side of manometer tube by pumping air into right side, using hand pump. Inserts cylinder of pulverized material into top of left tube. Releases air pressure from right side and times drop of mercury level in left side, using stopwatch. Computes specific surface of material, using standard algebraic formula. Reports below-standard reading to mill operator. May test milled sample of aluminum alloy to identify metals in sample and be designated Quantometer Operator (smelt. & refin.).
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

519.484-010 CARNALLITE-PLANT OPERATOR (smelt. & refin.)
Mixes ingredients to prepare carnallite flux used in refining magnesium: Weighs carnallite ingredients according to formula. Mixes ingredients on concrete floor, using shovel. Melts mixture in furnace crucible. Tilts furnace with handwheel to pour molten carnallite into cooling pans. Pulverizes solidified carnallite in grinding mill and shovels powder into metal drums.
GOE: 06.02.18 STRENGTH: M GED: R2 M1 L2 SVP: 4 DLU: 77

519.484-014 RAW SAMPLER (smelt. & refin.) alternate titles: sample carrier
Collects and prepares laboratory samples of metal-bearing ores, refined metals, and other materials, such as coke, cryolite, slag, scrap, or flue dust, by any combination of following methods: (1) Collects samples of crushed ore, concentrates, or other material from conveyors, storage bins, carloads, or refining equipment, using sample containers or diverting mechanisms on conveyors or chutes. Grinds materials, using grinder mill. Weighs, dries, and reweighs material, using scales and oven, and computes moisture content. Sifts material through screen to remove oversized particles. Places sample in labeled containers, flasks, or bags for laboratory analysis. (2) Takes samples of molten metal from furnaces or casting stations, using ladle and wafer mold. Stamps or marks identifying information on cast wafer for delivery to laboratory. (3) Cuts samples of metal sheet or plate, using shears or punch. Saws sample sections from metal castings, plate, or rod for metallurgical analysis, using circular saw. Smooths cut surfaces of metal with grinder and sandpaper. Etches samples in acid to expose crystalline structure for spectrographic analysis. Drills holes in castings to obtain shavings for laboratory analysis. Stamps or labels samples for identification.
GOE: 02.04.01 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

519.485-010 GRINDER-MILL OPERATOR (smelt. & refin.)
Tends ball mill that grinds ore and classifier that separates coarse from fine particles: Turns pump valves and moves conveyor-control levers to feed soda ash, starch, lime, water, ore, and other materials into ball mill to make slurry. Adds chemical reagent to slurry that causes fine particles to float and enables classifier to separate fine from coarse particles and to return coarse ones to mill for regrinding. Obtains sample of slurry in bucket from mill and classifier. Weighs sample and calculates density of mixture or titrates sample to measure alkalinity. May examine ore tactually or observe its color to ascertain size of particles. May set automatic device to regulate amount of ore passing on conveyor belt to ball mill.

GOE: 06.02.08 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

519.485-014 RECOVERY-OPERATOR HELPER (smelt. & refin.)

Assists RECOVERY OPERATOR (smelt. & refin.) in operating kiln, ball mill, and conveyor system to recover soluble soda and alumina from waste materials: Moves controls to adjust feeds to rotary kiln and ball mill and to regulate operation of dust-collection equipment. Reads and records tank levels and slurry and soda ash temperatures. Collects and weighs batches of slurry to determine density. Measures oxygen content of flue gases, using gas analyzer. Keeps operating log. Turns valves to supply water to kiln trunnions and water-cooled bearings. Lubricates valves and adjusts packing glands to prevent leaks. Cleans cooler grates, using handtools. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: [illegible] DLU: 77

519.565-010 DIGESTION OPERATOR (smelt. & refin.)

Tends battery of digester vessels that dissolve bauxite in plant liquor: Turns valves on pumps to transfer liquor and bauxite slurry through heaters into digester vessels. Turns valves to inject milk of lime into vessels. Adjusts pumps and valves to circulate cleaning solution through process lines. Collects samples of slurry and alumina solution for laboratory analysis. Keeps log of operations.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

519.565-014 TANK-HOUSE-OPERATOR HELPER (smelt. & refin.)

Assists TANK-HOUSE OPERATOR (smelt. & refin.) in setting up electrolytic copper-refining tanks by performing any combination of following duties: Cuts, strips, and trims copper sheets from starting blanks, using knife, pincers, and power shear. Places sheets in machine to clean and coat them with oil solution. Cinches or rivets loop strips to sheets, using looping machine. Straightens starter sheet blanks, using paddle or sledgehammer. Lifts and hangs starter sheets on electrical suspension bars in tanks. Guides MONORAIL CRANE OPERATOR (any industry) in positioning or removing anodes and coated starting plates. Scrapes and flushes out tanks, using scraping tools and water hose. May be designated according to function performed as Grease-Machine Worker (smelt. & refin.); Looper (smelt. & refin.); Sheet Hanger (smelt. & refin.); Stripper (smelt. & refin.). Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

519.582-010 RECOVERY OPERATOR (smelt. & refin.)

Operates rotary kiln, ball mill and conveying equipment to recover soluble soda and alumina from waste materials: Moves lever and switch controls to start and regulate rotation speed of kiln. Moves controls to maintain specified temperatures throughout kiln and feed rate of kiln. Catches samples of slurry clinker from kiln, and observes discharge of slurry at sample points to ensure specified burning. Moves controls of cooling air fan, cooler exhaust fan, and air dampers to adjust temperature of grate cooler and airflows to burners. Moves controls and adjusts feed valves to start conveyor and bucket elevator system and to transport calcined clinker, bauxite, and soda ash into ball mill. Regulates valves and pumps to transfer slurry from ball mill into digestion tanks and to supply water to kiln trunnions and water-cooled bearings. Keeps operating log. Replaces charts in automatic recording devices.
GOE: 06.02.10 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

519.585-010 HARDNESS TESTER (mine & quarry)

Tends tumble drums, screens, and balance scales to test hardness of baked taconite pellets: Reads schedule to obtain specifications, such as furnace from which pellets are to be drawn and time of withdrawal, and notifies sampling personnel to prepare sample pellets. Pours sample over screen, and weighs screened pellets on balance scale. Dumps pellets into drum, and starts drum rotating for specified number of turns. Screens tumbled pellets, and weighs them to determine weight loss from tumbling. Reads conversion chart to obtain hardness number. Records hardness number of samples tested. May clean work area, using broom, shovel, and water hose.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

519.585-014 MUD BOSS (smelt. & refin.)

Tends machines that drain, filter, dry, crush, and package slime from electrolytic tanks, preparatory to recovery of valuable metals, such as gold, silver, platinum, and vanadium: Pulls lever to drain and filter slime from electrolytic tanks into storage tank. Drains slime into machine to subject it to heat and pressure to remove moisture. Starts conveyor to transport dry slime to automatic grinder machine. Observes flow of slime from grinder into container. Weighs container, and marks weight on container and tally sheet. Inspects tanks for leaks and other defects. Collects samples of liquids for analysis. May tend machine which dries and presses slime into cakes for shipment. May transfer electrolyte from one tank to another by passing it through intermediate steam-heated tank, offsetting evaporation by adding hot water. May smooth surface of starting sheets with sandpaper to remove pits and scratches.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

519.585-018 SAMPLE TESTER-GRINDER (mine & quarry)

Tends crushers, ovens, and screens to test samples of ore: Starts crusher to pulverize ore. Removes ore from crusher and places it in oven to dry. Sends portion of sample to laboratory for chemical analysis. Places sample in vibrator containing magnets and water. Starts vibrator to separate magnetic content of ore from impurities. Drains water from vibrator and weighs magnetic remainder. Pours ore sample through series of vibrating screens of different size openings to separate ore samples. Weighs and records each size of ore. Records number of tests performed. May collect ore samples from various sites in plant or mine, and record origin of samples. May perform chemical sedimentation or hardness tests on samples.
GOE: 05.12.07 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

519.663-010 DOOR-MACHINE OPERATOR (steel & rel.)

Operates machine equipped with door jack and coke guide to remove doors from discharge end of coke ovens and guide discharged coke from oven to quenching car: Drives machine along rails to designated oven. Moves levers to hook machine arm onto door and remove it from oven, and to position frame which guides discharged coke from oven into quenching cars. Signals PUSHER OPERATOR (steel & rel.) to discharge coke from oven. Cleans fire clay and tars from door and jamb, using chisel bar. Gathers dry clay and residue with shovel and wheelbarrow, and dumps it into hopper. Replaces door. May manually hook coke-guide hangers to oven and drop apron to oven sill. May steam clean door machine.
GOE: 06.04.12 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

519.663-014 HOT-CAR OPERATOR (steel & rel.)

Drives electric car to haul hot coke from oven to quenching station and wharf: Positions dumpcar coupled to electric car below coke guide on designated oven. Signals PUSHER OPERATOR (steel & rel.) to discharge coke. Moves car forward to distribute coke evenly in car. Transports coke to quenching station, and starts equipment that sprays hot coke with measured amount of water. Moves car to wharf, and turns air valve to open gates on car and dump coke on wharf. Cleans cab and cab windows, using cleaning agents, broom, and brushes.
GOE: 06.04.40 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

519.663-018 PUSHER OPERATOR (steel & rel.)

Operates pusher machine which runs on rails at base of coke ovens, to push hot coke from ovens: Drives pusher to designated oven. Moves levers to hook door arm to oven door and to remove it from oven, and to position ram. Starts ram at signal from worker on discharge side of oven to push coke out of oven. Withdraws ram and replaces door in oven. Moves leveling bar back and forth through opening near top of oven to level fresh charge of coal. Signals LARRY OPERATOR (steel & rel.) to recharge oven. Cleans pusher, using steam hose.
GOE: 06.04.12 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

519.664-010 ASSEMBLY CLEANER (smelt. & refin.)

Removes pot crust and carbon from spent anode assemblies, and cast-iron thimbles from contact rods, using crushing press, handtools, and power tools: Secures anode assembly to vibrating table, using hydraulic shaft and clamps. Depresses pedal to activate vibration that shakes loose pot crust (cryolite), and breaks crust remaining on anode, using airhammer. Sorts scrap aluminum from crust, and throws scrap in barrel. Removes anode assembly from table. Pushes pot crust from table into hopper of automatic crusher to prepare crust for reuse. Observes machine and clears jams in hopper. Breaks carbon or pot crust from contact rods, using hammer or airhammer. Observes automatic thimble press that crushes and cracks cast-iron thimble formed around rod, and stops machine when malfunction occurs. Examines assemblies on conveyor to detect damaged rods, and removes assemblies that need repair. Removes cast iron reclaimed from rods for transfer to reduction furnace for remelting. May be designated according to operation performed as Anode-Assembly Cleaner (smelt. & refin.) II; Thimble-Press Operator (smelt. & refin.).
GOE: 06.04.24 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

519.664-014 POT LINER (smelt. & refin.)

Relines pots and rebuilds continuous anodes used in reduction of aluminum by performing any combination of following duties: Replaces spacers, shunts, risers, brackets, straps, supports, and collector bars in pots, using wrenches. Attaches cables to pot superstructure and signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift it from pot. Blows dust from top of anode, using air gun. Cuts metal sheet to size, using shears or pneumatic cutter, bends it around stub of anode, and rivets it to casing. Roughens top of stub, using fork, and pours carbon paste into form to build up anode to specified height. Pours water into pot to loosen material. Digs burned-out lining, insulation ore, bath material, and brick from interior of pot, using digger or jackhammer. Lays brick base on pot floor and signals OVERHEAD CRANE OPERATOR (any industry) to dump carbon mix into pot. Lines walls and floor with mix to specified depth, and tamps mix into cracks, using pneumatic hammer. Reforms shell cavity with insulating board, masonite, plywood, or sheet metal. Removes steel shell for repair, using hoist.
GOE: 05.10.01 STRENGTH: H GED: R3 M1 L2 SVP: 4 DLU: 77

519.665-010 GRANULATOR TENDER (steel & rel.) alternate titles: slag expander

Tends granulator machine that expands blast-furnace slag for use as building or insulating material: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to position iron runners that carry slag from furnace to granulator machine. Opens gate of furnace to allow slag from furnace to flow onto runners, and turns water, air, and steam valves to spray slag in granulator. Positions container under discharge chute of granulator to receive expanded slag, using car puller. Starts conveyor that carries expanded slag from granulator to discharge chute. Stops equipment and clears slag from runners, granulator, and conveyor, using iron bar. Lubricates equipment, using grease gun and oilcan.

GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

519.665-014 STANDPIPE TENDER (steel & rel.)
Tends equipment that regulates flow of byproduct gases in coke-oven standpipes preparatory to discharging or charging oven: Moves controls to regulate flow of gases to collecting main, to open standpipes and oven charging holes, clear oven and standpipe of gases, and control flow of ammonia liquor and steam during charging. Sweeps spillage into charging holes. Cleans top of ovens, using broom and shovel. Clears standpipe, nozzles, and charging holes, using chisel bar and drill. Pokes coal from hoppers on charging car, using bar. May hook chains to oven doors and use winch to raise or lower doors. May loosen, unplug, and move tar in main, using bar [CHASER, TAR (steel & rel.)].
GOE: 06.04.12 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

519.665-018 WET-PLANT OPERATOR (smelt. & refin.)
Tends equipment that recovers cadmium, lead sulfate, and zinc oxide from dust collected in precipitators: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to dump dust into tank from which it is processed through series of sulfating tanks to precipitate and wash lead sulfate and cadmium. Pumps washed liquor to another tank for treatment prior to recovery of zinc oxide. Prepares lime solution and mixes it with zinc oxide liquor. Titrates samples or tests solution for acidity and specific gravity, using hydrometer. Distills cadmium in retort furnace.
GOE: 06.04.10 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

519.667-010 CARBON SETTER (smelt. & refin.)
Replaces carbon anodes of electrolytic cells used in processing aluminum or magnesium: Disconnects anode assembly from connector arm, using wrenches. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift burned anodes from pot and lower new anode assembly into pot. Cleans connector arms, using sandblast hose. Fastens anode rod to connector arm, and adjusts assembly to suspend anode in bath. Breaks burnt carbon block from steel stubs, using sledgehammer, and unbolts steel stubs from copper rods, using wrench. Shovels broken carbon into boxes, and loads rods and stubs on trailers for removal.
GOE: 06.04.34 STRENGTH: H GED: R3 M1 L1 SVP: 3 DLU: 77

519.667-014 LABORER, SOLDER MAKING (nonfer. metal)
Performs any combination of tasks involved in melting, refining, and pouring solder: Shovels scrap into furnace melting pots and adjusts fuel valves to regulate melting. Skims off dross with ladle. Plunges sieve box filled with potatoes to bottom of molten metal so that steam from charring potatoes agitates metal and brings additional dross to top. Skims off remaining dross. Ladles refined metal from pots to molds. Removes cooled metal from molds and places it on handtruck. Mixes tin, lead, or refined scrap solder in melting pots, as directed by SUPERVISOR, SOLDER MAKING (nonfer. metal). Ladles new solder into pig molds or into troughs of solder-making table. May cut bars into short lengths. Ties bars into bundles and packs bundles for shipment or storage. May charge lead and tin pigs into furnace melting pots, by hand or using overhead power hoist. May weigh pigs preparatory to charging furnace, using scale. May level machine that converts molten lead-tin alloys into powdered metal to process solder cream and be designated Solder Cream Maker (nonfer. metal).
GOE: 06.04.24 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

519.683-010 DROSS SKIMMER (smelt. & refin.)
Operates overhead crane to control perforated metal basket to skim dross from molten lead and to transfer lead from blast furnace to heated kettle: Moves levers to lower basket and skim off dross into barrel for salvage. Attaches electrically powered pump to kettle and starts pump to transfer molten lead into kettle. Starts powered stirrer that agitates lead. Skims off sulfide dross into barrel, using crane. Moves containers to salvage bin, using handtruck.
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

519.683-014 LARRY OPERATOR (steel & rel.) alternate titles: charger-car operator; charging-car operator; gas tender
Operates larry (electric charging-car) to charge coal into coke ovens: Weighs empty larry on scale to obtain tare weight. Opens chutes of storage bin to dump specified weight of coal into hoppers on larry. Drives larry to ovens, and moves controls to position hoppers over open charging holes. Pushes levers to drop thimbles (sleeves) into charging holes and to open slides in hoppers. Pokes bar through opening in hopper to force coal into oven. Records oven number, battery, date, mix of coal, and shift. May move controls to lower and raise porcupine in open standpipe to clean walls. May signal PUSHER OPERATOR (steel & rel.) to level coal in oven.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

519.684-010 LADLE LINER (foundry; smelt. & refin.) alternate titles: ladle cleaner; ladle patcher
Repairs and relines ladles used to transport and pour molten metals: Chips slag from interior lining of ladle, using hammer and chisel. Mixes sand, clay, and water, using shovel to form refractory clay mud. Patches lining where cracked or worn by covering lining with refractory clay and tamping it in place. Chips out entire lining when beyond repair, using hammer and chisel. Relines ladle with refractory clay, using trowel. Dries and bakes new lining by placing inverted ladle over burner, building fire in ladle, or by using blowtorch. Relines and shapes pouring spouts of ladles with fire clay. May reline ladles with refractory brick. May make stoppers for stopper-type ladle. May brush graphite facing on lining.
GOE: 06.02.30 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

519.684-014 LEAF COVERER (smelt. & refin.)
Cleans and re-covers leaves of aluminum-ore filtering units, using overhead bridge crane and handtools: Opens filter units and removes filter leaves, using crane. Strips worn covers from filter leaves, using knife and wire cutters. Transports filter leaves from filter units into cleaning vats, using crane. Cleans discharge neck of leaves, and swabs them with graphite paste. Covers cleaned filter leaves with cloth, and replaces leaves in filter units, using crane.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

519.684-018 MOLD DRESSER (any industry) alternate titles: mold repairer
Removes residue, blemishes, corrosion, and similar defects from interior of molds, using handtools and power tools: Inspects interior surfaces of molds to locate pits and holes. Positions molds for work, using hoist. Repairs defects, using hammers, drills, chisels, routers, or grinding wheel. Smooths interior of mold, using file, buffing wheel, emery paper, or steelwool. May add metal to or remove metal from plates, rings, and molds, using welding equipment and files. May reassemble molds after repairing. May be designated according to type of mold repaired as Glass-Mold Repairer (glass mfg.).
GOE: 06.04.24 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

519.684-022 STOPPER MAKER (steel & rel.) alternate titles: stopper-rod maker
Assembles refractory stoppers used to plug pouring nozzles of steel ladles: Mixes specified amount of refractory mortar powder with water, using trowel or hoe. Fastens stopper head to rod with metal pin. Spreads mortar on rod, using trowel, and slides brick sleeves over rod to form refractory jacket. Tightens locknuts holding assembly together, using wrench. Spreads mortar on jacket to seal sleeve joints. Hoists stopper and rod assembly on drying rack and pushes rack in oven to dry mortar. Pulls rack from oven and pushes it to storage area.
GOE: 06.04.30 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

519.684-026 TOOL REPAIRER (smelt. & refin.)
Repairs worn and damaged equipment and tools used by workers engaged in electrolytic refining of copper: Examines rubber boots and gloves and fills them with water to detect holes. Mends holes with rubber patches. Mends leaky metal buckets by soldering holes. Grinds dull tools, such as picks, shovels, and scoops, using electrically powered emery wheel. Replaces handles, hose, and other defective parts of tools and equipment. Issues new or repaired replacements.
GOE: 06.02.32 STRENGTH: L GED: R3 M1 L1 SVP: 5 DLU: 77

519.685-010 BRIQUETTING-MACHINE OPERATOR (smelt. & refin.) alternate titles: pellet-press operator
Tends equipment to dry, mix, and compress copper fines into briquettes for use by smelter: Starts belt conveyors that automatically feed mixture from wet-bin hopper to heated rotary dryer. Turns valve to set burner at specified temperature. Tests moisture content of mixture by feeling with fingers. Pulls lever to open discharge gate of heating chamber to admit mixture into pug mill. Opens valve to add binding solution to obtain mixture of required consistency. Turns valve to feed mixture into press to form briquettes. Oils and greases equipment, using oilcan and grease gun.
GOE: 06.04.10 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

519.685-014 GROUT-MACHINE TENDER (smelt. & refin.)
Tends machine that forces mortar into spaces between firebrick and steel shell of taconite ore furnace: Inspects furnace to detect discoloration spots which indicate flaws in firebrick inner wall of furnace. Shovels grout into reservoir of machine. Attaches airhose to compressed air system and grout hose to nipple on shell of furnace with wrench. Starts machine and observes pressure gauge to determine when space is filled. Caps nipple welded onto furnace shell, using wrench. May mix mortar, using electrically driven paddle wheel. May dismantle and clean grout machine and equipment, using wrenches, water, and airhoses.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

519.685-018 KETTLE OPERATOR (smelt. & refin.)
Tends oil-fired kettles that melt and fume antimony to make antimony oxide: Charges antimony crystals into melting kettle with hoist, and fires burners. Regulates temperature according to thermometer readings and color and appearance of metal. Skims slag from surface of kettle. Connects trough from melting to fuming kettle, and pours metal into trough by tilting kettle. Heats metal to specified temperature to vaporize antimony which is drawn to baghouse and condensed as oxide dust. Fills buggy with antimony oxide from hoppers, and weighs filled buggy on floor scale. Empties buggy onto conveyor leading to rotating drum in which oxides from different charges are blended. Transfers blended dust to conveyor leading to automatic bagging machine. Determines antimony content by casting sample into rod of specified size, weighing it, and referring to standard chart.
GOE: 06.04.10 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

519.685-022 KETTLE TENDER I (smelt. & refin.)
Tends series of oil-fired kettles that refine lead: Charges kettle with lead in molten or pig form, and fires kettle. Adds specified type and amount of reagent and agitates mixture to cause impurities, such as antimony, arsenic, bismuth, and tin to form into dross. Skims dross off mixture, using ladle, shovel, or per-

forated dipper. Throws zinc bricks into kettle and agitates mixture to desilverize lead. Skims crust of silver and gold content into basket of press, and compresses dross with air-driven ram. Pumps lead through reaction cylinder while chlorine is admitted to form zinc chloride slag. Skims slag after completion of reaction as indicated by color of slag and molten metal. Pours metal into molds or dips samples into cold water to prepare them for laboratory analysis. May hook pot to crane and signal OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to transfer lead from one kettle to another. May crystallize zinc in water-cooled vacuum tank to remove zinc from desilverized lead. May produce antimony crystals from antimonial lead by mixing prescribed reagents with molten metal in kettle, by skimming dross, and by cooling bath to specified temperature. May be known according to specific duty performed as Desilverizer (smelt. & refin.).
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

519.685-026 MUD-MILL TENDER (smelt. & refin.)
Tends mill that mixes flue dust with water to settle it for shipment: Opens bin outlet allowing dust to fall into mixing mill. Dislodges banked dust in bin by hammering sides. Starts mill and opens valve of water spray. Opens door of mill allowing moistened dust to fall onto conveyor belt leading to railroad car. May distribute mixture evenly in car, using shovel.
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

519.685-030 ROD-MILL TENDER (cement; smelt. & refin.) alternate titles: regrind mill operator
Tends rod mills that grind ore, clinkers, and rock into fine particles: Starts mill and feed conveyors. Turns valves to feed lime, water, starch, soda ash, and other materials into mill to make slurry. Pushes button to start screw conveyor that separates coarse particles from slurry and returns them to mill for regrinding. Obtains sample of ore or slurry in bucket for laboratory analysis. Weighs sample on balance scales to determine density of slurry. Turns valves to feed water into mill to obtain specified density of slurry. Replaces worn rods in mill, using electric hoist. May record operating time of rod mills and levels of materials in storage bins.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

519.686-010 LABORER, GENERAL (nonfer. metal)
Performs any combination of tasks to aid other workers in production of nonferrous metal products: Transfers boxes of metal scrap from work areas to storage areas, using handtruck, and records quantity and type of scrap transferred. Dumps scrap metal into crusher that reduces bulk of metal. Shovels metal scrap onto furnace conveyor to dry scrap preparatory to melting. Dumps paste oil or fat into drum, adds water, and mixes solution, using steam hose, to prepare lubricant used in drawing tubes and rods. Examines metal products for defects, such as dents, cracks, and scratches. Taps dents from products, using mallet. Feeds metal castings into automatic finishing machine that performs operations, such as reaming, stamping, and cleaning. Scrapes carbon, dirt, and metal particles from interior surface of casting molds. May be known according to specific duties performed as Chip-Crusher Operator (nonfer. metal); Chip Drier (nonfer. metal); Inspector (nonfer. metal) II; General Scrap Worker (nonfer. metal); Soap Worker (nonfer. metal).
GOE: 06.04.10 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

519.687-010 CELL PLASTERER (smelt. & refin.)
Seals opening around carbon anode, where it protrudes through cover of magnesium refining cell, to prevent leakage of chlorine gas and to secure anode in position. Applies mixture of asbestos fiber or pulp and water or oil, using trowel.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

519.687-014 DUST PULLER (smelt. & refin.) alternate titles: flue-dust laborer
Rakes or scrapes flue dust from converter flues or hoppers into larry cars or screw conveyors for shipment to furnaces. Breaks up packed dust with bar or pole, and hammers sides of hopper with mallet or bar to dislodge contents. May drive larry car to furnace, and dump load into furnace. May scrape dust into collecting hoppers. May measure depth of dust in flue, using sounding chain.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

519.687-018 FLUX-TUBE ATTENDANT (nonfer. metal; smelt. & refin.)
Mixes flux for graphite tubes and replaces tubes and chemical supply tanks on aluminum remelt furnaces: Mixes silicon aluminum paint solution (flux) and dips ends of new graphite tubes into solution to coat them. Transports tubes and tanks of chlorine and nitrogen to furnaces, using handtruck. Turns valves to shut off flow of chlorine and removes tubes from furnace, using handtools. Discards broken tubes and installs new ones. Cleans usable tubes, using wire brush, and installs them to specified depth. Installs replacement tanks of chlorine and nitrogen on furnace, using handtools, and adjusts valves until tank pressure and flowmeters reach specifications. Records amounts of chemicals and tubes used for each furnace. Tours furnace area to verify readings of pressure and flowmeter gauges and makes required adjustments.
GOE: 06.04.10 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 77

519.687-022 FOUNDRY WORKER, GENERAL (foundry)
Performs any combination of following tasks in foundry concerned with melting metal, pouring metal into molds, removing castings from molds, dressing castings, moving foundry materials, and cleaning equipment and work areas: Moves sand, castings, flasks, or other materials about foundry by hand, using wheelbarrow or cart, or by loading them onto conveyor. Assembles flasks, using wrench, bolts, and tap screws. Waters and mixes sand, shovels sand into flasks, and compacts sand in flasks, using ramming tool. Sprays binder on surface of sand molds and dries surface with blowtorch. Fits together, clamps, and unclamps cope and drag on production line. Weighs out specified amounts of materials for furnace charge, and loads charge into melting furnace. Skims slag from surface of molten metal, using scoop. Carries or pushes ladles of molten metal on monorail and pours metal into molds. Installs and removes steel jackets and bands used to hold snap molds together during casting. Breaks sand mold from finished casting, using bar or hammer. Sorts castings into pairs or groups for assembly. Pulls reinforcing wires from castings. Directs high pressure stream of water onto castings to clean castings and remove cores. Cleans castings, patterns, and flasks, using wire brush. Removes gates, sprues, and other projections from castings with sledge, pneumatic hammer, power shear, or power hacksaw. Breaks up used sand molds with bar, shovels sand into drying oven and sand-mixing machine, and sifts sand through motor-driven screen for reuse in new molds. Breaks up slag, using hammer, and shovels it into buckets for removal to dump. Chips out worn cupola and ladle linings, using bar. Prepares plaster and relines ladle. Sweeps and cleans work areas. May be designated according to worker assisted or according to duty performed as Casting Carrier (foundry); Casting Sorter (foundry); Cupola-Tender Helper (foundry); Flask Carrier (foundry); Jacket Changer (foundry); Ladle-Liner Helper (foundry). May be designated: Ladle Pusher (foundry); Mold Clamper (foundry); Mold-Closer Helper (foundry); Molder Helper (foundry); Molder Helper, Machine (foundry); Mold Stacker (foundry); Pattern Carrier (foundry); Pattern Cleaner (foundry); Sand-Screener Operator (foundry); Sand Shoveler (foundry); Sand Wheeler (foundry); Shake-Out Worker (foundry); Skimmer (foundry); Slag Worker (foundry); Sprue Knocker (foundry).
GOE: 06.04.32 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

519.687-026 LABORER, GENERAL (smelt. & refin.)
Performs any combination of following tasks as directed by workers engaged in crushing, sampling, smelting, refining, loading, and moving ore and other materials, and cleaning machines and equipment: Loads and unloads material from freight cars or trucks, manually or using hoist, conveyor, or handtruck. Sifts and screens materials, using screen and shovel. Fills sacks or barrels with materials, such as arsenic, nickel, and selenium. Weighs materials, such as ore and scrap. Shovels scrap into trucks and storage bins or sorts and stacks scrap. Segregates and stacks castings, using tongs or hoist, and marks or stamps identifying codes on castings. Flushes mud and sludge from cooling and circulating tanks, using water hose and scrapers. Removes arsenic from kitchens, using cable-drawn scrapers. Empties slag pans from furnace, using hoist. Brushes cores with oil to prevent cores from cracking. Hooks and unhooks charge boxes and scrap trucks, to and from overhead crane. Cleans work area and delivers samples to laboratory for analysis. May remove scrap metal and wood from conveyors that feed machines. May spray firebrick with clay solution to reduce corrosive and abrasive action.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

519.687-030 MACHINE-CASTINGS PLASTERER (foundry)
Caulks machine castings, using putty knife or trowel: Measures out required amount of metallic plaster and mixes it into paste of specified consistency. Applies paste to surface of machine castings, filling cracks and blowholes and leveling rough spots, using putty knife or small trowel. Allows putty to dry and sands plaster to smooth surface.
GOE: 06.04.33 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

519.687-034 RODDING-ANODE WORKER (smelt. & refin.)
Renews carbon anode assemblies used in electrolytic processing of aluminum by performing any combination of following duties: Removes carbon blocks from conveyor, using hoist. Feeds steel stubs on conveyor through bath solution to coat them with graphite. Positions pouring ring and steel stub on carbon block. Tilts crucible to pour molten iron around stub to cast it to block. Bolts copper rod to stub, using wrench. Loads anode assemblies onto trailer for removal to potroom, using hoist. Unbolts copper rod from steel stub embedded in disintegrated block. Places stub in hydraulic press and pulls lever to break off unused portions of block. Cleans and straightens stubs and rods, using chipping gun, disc grinder, and straightening hammer. Chips iron splashings from poured blocks, using chisel and hammer. Pushes buttons and pulls levers to activate and switch conveyors to move blocks or assemblies through assembly process.
GOE: 06.04.34 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

519.687-038 STOPPER-MAKER HELPER (steel & rel.)
Assists STOPPER MAKER (steel & rel.) in assembling refractory stoppers: Places steel rod in vise and bends it to specified shape, using sledgehammer. Mixes cement and fire clay with water to form refractory mortar. Carries materials, such as rods, stopper heads, and sleeves, to work area. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.30 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

519.687-042 TEST WORKER (foundry)
Obtains sample of molten metal from each furnace heat, using hand ladle or glass tube: Dips hand ladle or inserts glass tube into pouring ladle before molds are poured. Pours molten metal into sand mold or allows it to solidify in glass tube. Breaks or drills solidified metal to obtain test sample, using ham-

mer or drill press. Marks sample according to heat from which sample was taken.
GOE: 06.04.24 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

52 OCCUPATIONS IN PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS

This division includes occupations concerned with preparing food, tobacco, and related products for commercial use. Includes manufacturing phases after harvesting and prior to marketing. Such activities as slaughtering livestock, blending cheeses, fermenting alcohol, and smoking hams are included in this division. Marking and packaging occupations are included here when they occur at the end of a production process.

520 MIXING, COMPOUNDING, BLENDING, KNEADING, SHAPING, AND RELATED OCCUPATIONS

This group includes occupations concerned with combining and mingling various materials to produce a single mass or compound and working an object or material by pressure and configuration to shape it or effect its texture and consistency.

520.132-010 BLENDING SUPERVISOR (grain-feed mills)
Supervises and coordinates activities of workers engaged in blending various grades of flour into blends and mixing blends with cooking ingredients to prepare self-rising flour and premixes: Confers with plant management and other supervisors to plan daily production and coordinate blending department activities with other departments. Inventories storage bins and packaging hoppers to determine priority of blends and availability of grades for blending. Trains new workers. Turns knobs on blending equipment to set blending meters for scheduled grades of flour to be produced. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

520.132-014 SUPERVISOR, COMPRESSED YEAST (food prep., nec)
Supervises and coordinates activities of workers engaged in pressing, mixing, and packaging bakers yeast: Trains workers in operation of machines. Examines and feels yeast throughout process for color, consistency, and sharpness of breaking edge. Observes progress of yeast through filter pressing, mixing, extruding, and packaging operations to ensure continuous workflow, conformity to specifications, and sanitary conditions. Prepares and submits requisitions for materials and supplies. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

520.136-010 BLENDING SUPERVISOR (tobacco)
Supervises and coordinates activities of workers engaged in feeding tobacco leaves onto blending conveyor: Plans daily work schedules based on analysis of work orders and inventory of tobacco in storage area. Assigns workers to feed tobacco of different grades into conveyor to achieve specified blend. Instructs individual workers to adjust rate of feeding based on hourly poundage and blending report. Compiles reports to show daily production and departmental labor cost by grade. Confers with plant officials and other supervisors to coordinate flow of tobacco through department. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

520.137-010 SUPERVISOR, LUMP ROOM (tobacco) alternate titles: supervisor, rolling room
Supervises and coordinates activities of workers engaged in molding lumps, plugs, or twists of chewing tobacco: Reads production schedules for information, such as quantity of plugs or twists and type of blend and wrapper leaf specified. Computes amount of filler and wrapper leaf required for production. Examines plugs and twists to detect variations from standards. Schedules cleaning and repairing of lump-making machines to avoid interruptions of production. Coordinates receipt of tobacco from casing and drying department and transfer of plugs to shipping department. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

520.361-010 HONEY GRADER-AND-BLENDER (food prep., nec) alternate titles: honey liquefier
Grades honey according to type, color, bouquet, and moisture content, and blends various grades to obtain uniform product: Compares samples of liquid honey lots with standard samples for color and bouquet, and ascertains moisture content, using refractometer. Calculates amount of various types of honey for mixing to produce product of uniform color, clarity, and bouquet. Directs other workers in dumping and blending of various honey lots in warming chamber. May grade and mark honeycomb sections according to government regulations.
GOE: 06.01.04 STRENGTH: S GED: R4 M3 L3 SVP: 6 DLU: 77

520.362-010 BULK-PLANT OPERATOR (sugar & conf.)
Controls equipment in bulk sugar plant to load and unload sugar and to blend sugar syrups according to formula: Signals drivers or engineers by hand to give directions in positioning trucks and railroad cars for unloading. Positions conveyors and attaches unloading hoses and pipes to truck and railroad cars. Opens conveyor gate and pipe valves and starts pumps, blowers, and conveyors to unload sugar from vehicle and to transport it to storage bins. Starts pumps and agitators to transport and mix specified amounts of water, corn syrup, and sugar in blending tanks. Dumps bags of diatomaceous earth into blend and pumps mixture through filter to remove impurities. Tests syrup to measure acid, yeast, and soluble sugar content, using pH meter and refractometer. Keeps records of test results, weight of sugar received and shipped, amount and type of syrup blended, and percentage of wasted materials. May weigh truck before and after loading. May tend steam boiler to supply steampower to plant equipment [BOILER OPERATOR (any industry)].
GOE: 06.02.15 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

520.362-014 DRY-STARCH OPERATOR (grain-feed mills)
Operates machines and equipment to mix cornstarch blends: Signals STARCH-TREATING ASSISTANT (grain-feed mills) to admit starch suspension into mixing and storage tanks, and to dump measured amount of chemicals into mixing tanks to prepare chemical solutions. Reads meters and turns valves to admit chemical solutions into blending tank. Manipulates switches and turns valves to regulate heaters and agitators that mix solutions, and to pump starch mixtures into blending and filter tanks. Receives or draws samples of product and performs standard tests to ascertain if acidity, alkalinity, and viscosity conform to specifications, using hydrometer and other test equipment. Records quantity and kind of chemicals used. Inspects equipment and observes gauges, thermometers, and meters to maintain efficient production. May direct workers engaged in regulating filters, shakers, centrifugal driers, and related equipment to produce dry starch products.
GOE: 06.02.15 STRENGTH: H GED: R3 M2 L3 SVP: 7 DLU: 77

520.382-010 CISTERN-ROOM OPERATOR (beverage) alternate titles: cistern-room working supervisor; subwarehouse supervisor
Controls regauging equipment from panelboard to reduce proof of newly distilled liquor in cistern tank before barreling: Reads charts to ascertain proof of liquor to be regauged, number of gallons to be regauged, and number of gallons of deionized water required to produce liquor of specified proof. Pumps specified number of gallons of liquor and deionized water into cistern tank. Opens valves to admit compressed air and agitate mixture. Reads thermometer and alcohol-proof hydrometer during process and compares readings with standard gauging manual to determine final proof of liquor. Pumps liquor into filling tanks for barreling or into railroad tank cars for shipment.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

520.382-014 LIQUID-SUGAR MELTER (sugar & conf.)
Controls equipment to blend granulated sugar and water to produce liquid sucrose of specified concentration: Reads job order to ascertain type and amount of liquid sucrose specified. Opens water and steam valves to fill tank and heat water to specified temperature. Reads chart to ascertain amount of sugar required for producing liquid sucrose of specified concentration. Starts pneumatic conveyors and opens valves to fill hopper with specified amount of sugar. Opens hopper gate to feed sugar into heated water. Starts agitators to mix liquid sucrose in tank for specified period. Closes steam valve and allows liquid to cool. Pumps liquid sucrose from mixing tank to specified storage tank. Records operating data in station log. Takes samples of liquid sucrose produced for laboratory analysis.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

520.384-010 BENCH HAND (bakery products) alternate titles: baker, bench; dough molder, hand
Forms dough for bread, buns, and other bakery products: Rolls dough to desired thickness with rolling pin or guides dough through rolling machine. Sprinkles flour on dough and workbench to prevent dough from sticking. Kneads dough to eliminate gases formed by yeast. Cuts dough into pieces with knife or handcutter. Adds spices, fruits, or seeds when making special rolls or breads. Weighs pieces on scales and keeps record of production. Places dough in baking pans. May cut dough into bun divisions by machine. May form dough into special shapes and add fillings or flavorings.
GOE: 06.02.28 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

520.385-010 MIXER, WHIPPED TOPPING (food prep., nec)
Tends machines that mix and blend ingredients to make whipped topping for use on desserts: Weighs prescribed amounts of raw materials, such as oil, water, sugar, and caustics. Adjusts thermostat for specified temperature in mixers and pumps or dumps ingredients into tank of mixer. Admits prescribed quantities of water and other ingredients into mixing tank at specified intervals. Tests solution for specified acidity, using pH meter. Pumps mixture into blending tank and adds flavoring prior to pasteurization.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

520.387-010 BLENDER (tobacco) alternate titles: granulating blender; leaf blender
Selects various grades and kinds of tobacco, to produce specific blend, according to formula and knowledge of tobacco characteristics: Removes leaves or hands of tobacco from hogsheads or bins, sorting tobacco according to texture, color, variety, and locality grown. Feeds specified amount of various grades and types of tobacco onto conveyor, or places tobacco in baskets, boxes, or piles for processing.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

520.462-010 DOUGH-MIXER OPERATOR (bakery products) alternate titles: control-panel operator

Controls semiautomatic equipment, from control panel, to blend ingredients for bread and deposit specified quantity of dough in baking pans: Notifies other workers to admit broth into feedlines and to start loading specified size pans onto conveyor. Turns handwheel to adjust conveyor guides to size of pans. Starts flour sifter, premixer that blends ingredients, and developer that kneads dough, working from remote control panel. Observes dials and recording instruments to verify temperature of broth, viscosity of dough, and speed of mixing units. Feels dough emerging from developer to ascertain that consistency meets plant standard. Turns developer speed control to specified setting and starts divider blades that pinch off and drop dough into pans passing on conveyor. Turns handwheel and control bar to adjust discharge aperture above divider blades so that dough is uniformly shaped and deposited in center of pan. Weighs sample pieces of dough and turns divider speed handle to regulate amount of dough deposited in pans. Records temperatures, viscosity, and feed rate from instrument readings.
GOE: 06.02.15 STRENGTH: L GED: R3 M1 L3 SVP: 5 DLU: 77

520.485-010 FLOUR MIXER (grain-feed mills) alternate titles: mixer-and-scaler; mixer operator

Tends machine that mixes flour and ingredients, such as buttermilk solids, phosphate, salt, soda, and sugar, to produce self-rising or other premixed flour: Dumps specified amount of flour into mixer or turns dial to convey measured amount into mixer. Weighs and dumps other ingredients, such as buttermilk solids, phosphate, soda, and sugar, according to formula, and starts machine. May record amount of ingredients in each batch. May be designated according to type of flour mixed as Self-Rising-Flour Mixer (grain-feed mills).
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

520.485-014 GRAIN MIXER (grain-feed mills) alternate titles: grain blender

Tends equipment to mix grain for milling into blended flour: Starts belt conveyor and adjusts valve controls on automatic feeders to regulate proportions of specified grades of grain flowing from storage tanks onto conveyor. Starts conveyors to transfer grain to milling department. May inspect grain for smut, rust, or other contamination. May find weight of minimum test bushel by filling standard measure with grain and recording weight.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.485-018 MINCEMEAT MAKER (can. & preserv.)

Tends equipment to mix ingredients used in preparing mincemeat: Weighs and measures ingredients, such as raisins, currants, ground orange peels, salt, spices, and hot water, using platform scale and measuring containers. Dumps ingredients from measuring containers into kettle and activates agitator to mix ingredients for specified period of time. Turns valve to permit ingredients to flow from kettle into cooling trough preparatory to canning.
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

520.485-022 REFINED-SYRUP OPERATOR (sugar & conf.)

Tends equipment that blends, inverts, and cools edible sugar syrups according to production schedules: Opens valves and starts pumps to move specified amounts of syrups and inverting materials from storage to mixing tanks. Calculates proportions of ingredients when blending syrups other than standard. Conducts light tests to determine viscosity and color of syrup, using refractometer and polariscope. Bottles samples of products for laboratory analysis. Opens valves to route and distribute syrups to tank cars or trucks. Maintains production and distribution records.
GOE: 06.02.15 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 77

520.485-026 SYRUP MAKER (beverage) alternate titles: cooker, syrup; sauce maker

Tends equipment to mix ingredients that produce syrups used in canned fruits and preserves, flavorings, frozen novelty confections, or non-alcoholic beverages: Determines amounts of ingredients, such as sugar, water, and flavoring, required for specified quantity of syrup of designated specific gravity, using sugar concentration and dilution charts. Opens valve to admit liquid sugar and water into mixer, or dumps crystalline sugar into mixer and admits water. Adds flavoring ingredients and starts mixer to make syrup. Opens valve to admit steam into jacket of mixer to invert sugar, eliminate air, and sterilize syrup. Tests syrup for sugar content, using hydrometer or refractometer. Pumps syrup to storage tank. May filter syrup to remove impurities and be designated Syrup Filterer (beverage). May blend raw syrups and be designated Syrup Blender (beverage).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

520.485-030 STARCHMAKER (grain-feed mills)

Tends equipment to separate starch from ground potatoes, and adds chemicals to resulting solution to produce starch of specified purity: Flushes shaker screen containing ground potatoes, using water hose, to remove foreign matter and form crude starch suspension. Turns valves to admit suspension and water to settling and rewash tanks in which impurities rise to surface, forming scum. Turns valves to transfer scum (brown starch) to starch tables and settling tanks until all white starch has been separated. Drains salvaged starch into vat, starts agitator, and adds equal volume of water to form white starch suspension prior to drying. Determines acidity, viscosity, and bacteria content of suspension, using pH meter and viscometer. Adds measured amounts of specified chemicals to further purify and preserve product.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

520.487-010 CHEESE BLENDER (dairy products)

Prepares charts of quantities, grades, and types of cheese required for blending to make cheese products: Feels, tastes, smells, and observes cheese for firmness, mellowness, acidity, and color, and selects cheese products for specified blend. Calculates quantities of cheese required for each batch, according to formula, and records quantities, grades, and types on chart. Compares laboratory reports with specifications and alters calculations to achieve specified body, texture, flavor, moisture, fat, acidity, and salt in finished product.
GOE: 06.01.04 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

520.487-014 FORMULA-ROOM WORKER (dairy products)

Prepares, bottles, and sterilizes infant formulas: Weighs or measures and mixes specified quantities of ingredients, such as evaporated, condensed, or powdered milk, food supplements, sugar product, soy product, and prepared meat base, using scales, graduated measures, spoons, and electric blender. Computes number of calories per fluid ounce of formula from information on labels of ingredients, and records information on gummed label and places on bottles. Pours formula into bottles, seals with nipple, protector cap, and collar, and places in autoclave for prescribed length of time to sterilize, or affixes hermetically sealed protector caps and places in commercial retort for sterilization and cooling. Removes sterilized bottles from autoclave and stores in refrigerator or removes bottles from retort after cooling process and packages for delivery. Washes and sterilizes empty bottles and unused nipples and caps. May be known according to specific duties performed as Formula Bottler (dairy products); Formula Maker (dairy products).
GOE: 05.10.08 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

520.487-018 PANTRY WORKER (sugar & conf.)

Assembles, weighs, and measures candy ingredients, such as egg whites and butter, according to formula: Selects batch formula cards in accordance with type of batch scheduled. Weighs dry ingredients on scales and pours liquid ingredients into graduated containers. Attaches formula card and identifying batch number to containers of measured ingredients for use by CANDY MAKERS (sugar & conf.). Keeps record of batches produced. May weigh ingredients, such as nuts, flavoring, extracts, condiments, and shortening that are not metered mechanically.
GOE: 06.04.28 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

520.565-010 CHURNER (oils & grease) alternate titles: picker-box operator

Tends one or more machines that churn processed shortening and margarine to obtain specified viscosity of mixture: Observes flow of stock in churner to avoid spilling. Adjusts valves to control and direct overflow into reprocessing tank. Starts machine to churn mixture, stops machine when specified viscosity is obtained, and opens valves and starts pump to transfer mixture. Adjusts governor to regulate speed of pump that transfers product into packaging machines. Collects and weighs sample of shortening at prescribed intervals to determine amount of nitrogen gas or air content in batch, using balance scale. Notifies VOTATOR-MACHINE OPERATOR (meat products; oils & grease) to add or delete nitrogen gas, according to weight standards. Adjusts valves to keep specified temperature in churner. Observes pressure and temperature gauges, and records readings. Cleans equipment and lines, using pressurized steam and nitrogen gas.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.585-010 BLENDER (bakery products) alternate titles: bolter; flour mixer; mill operator

Tends machine that blends flour: Loads pallets with sacks of specified flour and transports them to blending machine, using truck. Dumps flour from sacks into machine hoppers. Holds sack over suction bag-cleaning device to remove remaining flour dust. Starts blender and turns dials to regulate speed of screw conveyors that mix flour in prescribed ratios. Records weights of flours blended.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

520.585-014 BROTH MIXER (bakery products) alternate titles: broth setter

Tends flour sifter and vats to mix fermenting, oxidizing, and shortening solutions, according to formula: Dumps flour from bins into sifting machine, using mechanical tipping apparatus or power chain hoist. Opens valve, meters specified amount of water into fermenting vats, and adjusts thermostat to heat water to specified temperature. Measures or weighs yeast food, milk solids, salt, sugar, and enrichment ingredients, according to formula, and dumps ingredients into vats. Starts vat agitators and adds yeast at specified period to ferment solution. Opens valves and starts pumps to run solution through heat regulator to dough-mixing machine. Measures specified amounts of oxidizing solution and liquid shortening and dumps them into holding tanks. Keeps record of time and temperature readings.
GOE: 06.04.15 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

520.585-018 COOLER TENDER (sugar & conf.)

Tends mixing tanks and cooling equipment that blend unslacked lime with molasses for extraction of sugar and monosodium glutamate: Turns valves and starts conveyor to fill cooler vat with specified amount of molasses and lime. Starts agitator and cooling system. Reads dials and gauges on panel control board to ascertain temperature, alkalinity, and density of mixture, and turns

valves to obtain specified mixture. Opens valves and starts pump to pump mixture to filter station. Records data, such as volume of lime and molasses used, temperature, alkalinity, and density on report form. May be designated according to machine operated as Vortex Operator (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

520.585-022 LIQUID-SUGAR FORTIFIER (sugar & conf.)
Tends mixing tanks to fortify sugar liquid extracted from beets with concentrated sugar liquids to obtain standard sugar liquor: Starts pumps and mixing tank agitators and opens valves to fill mixing tank with thin sugar juice and concentrated sugar liquid. Tests density of sugar liquor, using hydrometer. Pumps liquids into tank until specified density of liquor is obtained. Takes sample of liquor for laboratory analysis. Records operational data.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

520.585-026 SPICE MIXER (food prep., nec) alternate titles: spice blender
Tends mixing machine that blends spices: Weighs out each variety of spice required and pours or shovels them into hopper of machine. Starts machine to mix spices to specified consistency. Pulls lever to tilt machine and dump mix into container or storage bin. May sift spices before mixing, using mechanical sifter. May compare color of mixture with standard color chart to ensure color meets specifications. When mixing tea, may be designated Tea Blender (food prep., nec).
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

520.587-010 PRETZEL TWISTER (bakery products)
Twists round strips of dough to form into pretzels: Picks piece of dough from conveyor and holds one end between thumb and forefinger of each hand. Flips dough into loop, and crosses and presses ends to outer circumference. Arranges pretzels on tray for baking. Records number of pretzels twisted.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

520.662-010 NOODLE-PRESS OPERATOR (food prep., nec)
Operates machine to blend ingredients, and knead, extrude, and cut dough used to make noodles: Installs specified die in press, using handtools. Adjusts press rollers to regulate thickness of dough, using micrometer and handtool. Dumps premeasured quantity of eggs into tub, sets meter, and turns spigot to admit prescribed amount of water. Starts beater to mix eggs and water for specified time. Starts pumps to transfer mixture to mixing unit of press. Opens hopper to admit flour into mixing unit and starts press to process mixture. Turns screw to set speed of knives to cut product to specified length. Patrols drying chambers and observes temperature and humidity readings recorded on charts for variation in drying procedure. Reports chart deviations to production manager. Records type of product, date, and time of entry and discharge of product from drying chambers.
GOE: 06.02.15 STRENGTH: M GED: R3 M3 L2 SVP: 6 DLU: 77

520.665-010 MINGLER OPERATOR (sugar & conf.)
Tends minglers that mix raw sugar and affination (syrup) to prepare raw magma of specified density: Starts mingler and signals MELT-HOUSE DRAG OPERATOR (sugar & conf.), using bell, to start flow of sugar to minglers. Turns valve to start flow of affination into minglers. Regulates speed of mingler and controls flow of affination to maintain magma at specified density and level in receiving tanks.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.665-014 MIXING-MACHINE OPERATOR (food prep., nec)
Tends machine that mixes compressed yeast with oils and whiteners preparatory to extrusion and packing: Signals worker to fill mixer with specified amount of compressed yeast. Pours specified quantity of cutting oils and whitening agents into yeast and starts agitators to mix ingredients for specified time. Observes and feels mixed yeast to determine its consistency and pours specified amount of water into yeast to achieve required consistency. Starts screw conveyor to transfer yeast to extruders.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

520.665-018 STARCH-TREATING ASSISTANT (grain-feed mills)
Tends mixing and blending tanks, and auxiliary equipment to assist in preparing starch blends from raw starch suspensions: Dumps specified amount of chemicals into mixing tank to prepare chemical solutions. Observes signals from DRY-STARCH OPERATOR (grain-feed mills) and pushes or pulls switches, and turns valves to start pumps, heaters, and agitators, and to admit raw starch and chemical solutions into blending tanks. Draws samples of mixtures for testing. Monitors thermometers, meters, and gauges, to ensure that filters, shakers, centrifugals, and driers are operating efficiently. Reports equipment malfunctioning to DRY-STARCH OPERATOR (grain-feed mills).
GOE: 06.04.15 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

520.682-010 BLENDING-PLANT OPERATOR (oils & grease)
Controls equipment to weigh and mix vegetable oils for products, such as salad oils, shortening, and margarine, according to formula: Opens valves to pump oils from storage tanks to scale tank. Weighs oils and pumps specified quantity of each oil into blending tank. Draws off sample of mixed oil and examines it for texture and color. Sends sample to laboratory for chemical analysis. Turns valves to make adjustments to blending process according to results of tests. Pumps mixed oil to storage tanks.
GOE: 06.02.15 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

520.682-014 CENTER-MACHINE OPERATOR (sugar & conf.) alternate titles: casting-machine operator; extruding-machine operator
Sets up and operates machine that extrudes soft candy, such as fondant, to form centers of specified size and shape for bonbons and chocolates: Inserts die plate in machine and tightens thumbscrews to secure plate. Examines and feels candy for specified consistency. Dumps candy into machine hopper. Starts machine that automatically feeds candy through openings in die plate and cuts off and deposits formed pieces on conveyor, or moves control to force candy through openings in die plate and moves wires that cut extruded candy to specified thickness. Weighs formed pieces at random to determine adherence to specifications. Adjusts wire or knife that cuts extruded candy to specified dimensions. When making cream centers to be coated with chocolate, may synchronize speed of center machine with enrobing machine. May be designated by product formed as Fondant-Puff Maker (sugar & conf.); Marshmallow Runner (sugar & conf.).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

520.682-018 EXTRUDER OPERATOR (grain-feed mills)
Operates dough-mixing and -extruding press to produce cereal products in form of letters, pellets, or other shapes: Cleans and installs perforated metal disk, containing openings of various shapes, in mixer. Attaches blade, using wrench, that sweeps around disk, shearing off extruded dough as it is forced through holes. Moves controls to set temperature of water, start flow of flour, water, and other ingredients into mixer, and regulate pressure forcing dough through extrusion die to maintain specified moisture content, color, and consistency of dough. May operate extruding press only, when mixing is performed by another worker. May be designated by form of extruded product as Pellet Operator (grain-feed mills).
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

520.682-022 GUM-SCORING-MACHINE OPERATOR (sugar & conf.) alternate titles: gum-rolling-machine tender
Operates one or more machines that roll chewing gum into sheets and score (partially cut) sheets to specified size: Turns handwheels to adjust rollers, knives, and scoring blades on machine to regulate thickness of sheet gum and depth of scoring, according to specifications, using ruler. Starts scoring machine and flow of gum from mixer into hopper of machine. Measures width, length, and thickness of scored sheets to ensure conformance to specifications, using ruler. Examines sheets for scoring defects and completeness of sugar coating. May give directions to other workers engaged in loading and unloading scoring machine and coating gum with sugar.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L1 SVP: 5 DLU: 77

520.682-026 MOLDING-MACHINE OPERATOR (sugar & conf.) alternate titles: mogul operator
Sets up and operates machine to mold soft candies, such as gumdrops, orange slices, and jellies: Installs *mold-printing board* in machine and tightens thumbscrews or inserts wedges to secure it. Observes thermometer and turns steam valve to maintain specified temperature in candy-melting hopper. Opens valve or starts pump to fill hopper of depositing unit with fluid candy. Starts machine and turns handwheels to synchronize flow of candy from depositing spouts with speed of mold board as it passes beneath spouts for filling. Weighs formed candy for adherence to specifications and regulates spouts to increase or decrease flow accordingly.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

520.682-030 SPINNER (sugar & conf.) alternate titles: batch-roller operator; hard-candy spinner; stick-candy puller; stick spinner
Operates machine that rolls or spins hot plastic candy into rope-like strip ready for cutting: Kneads hot candy into cylindrical shape on steam-jacketed pouring plate with gloved hands. Turns water and steam valves to regulate temperature of plate. Actuates heating unit of batch roller and starts machine. Lifts candy from pouring plate and feeds candy between machine rollers. Pushes lever to reverse action of rollers to stretch and compact candy to required size strip. May feed strip, discharged from batch roller, into cutting machine. May make specified types of hard candy, performing combination of duties, such as flavoring or coloring batch; spreading soft-center mixture, such as peanut butter, jam, or paste onto partially set candy; pulling candy prior to rolling and spinning [CANDY PULLER (sugar & conf.)]; or applying varicolored candy strips along cylinder to achieve mottled effect. May control battery of machines that automatically pump soft centers into candy, roll or spin candy, size rope candy, cut it to specified size, and pass it through cooling conveyor for wrapping and packing. When preparing rolls of jelly-centered coconut candy, may be designated Coconut-Jelly Roller (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

520.682-034 CRACKER-AND-COOKIE-MACHINE OPERATOR (bakery products) alternate titles: machine captain
Operates machine to roll dough into sheets and to form crackers or cookies, preparatory to baking: Turns crank to adjust space between rollers. Selects and installs stamping or extruding die unit in machine, using wrench. Pushes trough of dough to machine and shovels dough into hopper or dumps it into hopper, using hoist. Starts machine and inserts end of dough from hopper into roller. Observes operation and removes malformed cookies or crackers. Verifies weight of samples against standards, using balance scale. Scoops such ingredients as salt, sugar, and nuts into hoppers located along conveyor belt. May be designated according to machine operated as Bar-Machine Operator (bakery

products); Drop-Machine Operator (bakery products); Rotary-Machine Operator (bakery products); or according to product formed as Fig-Bar-Machine Operator (bakery products); Matzo-Forming-Machine Operator (bakery products).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 78

520.684-010 ALMOND-PASTE MOLDER (sugar & conf.) alternate titles: marzipan molder
Colors, kneads, and forms almond paste into decorative shapes, such as fruits and flowers: Adds specified amount of coloring to batch of almond paste and kneads it to distribute coloring uniformly. Rolls paste into sheets or cuts pieces from lump of paste and molds into decorative shapes, using fingers. May affix trimmings, such as artificial leaves and stalks, and form designs, using fingers or pronged instrument. May paint molded products with edible coloring, using brush.
GOE: 06.04.32 STRENGTH: L GED: R2 M1 L2 SVP: 5 DLU: 77

520.684-014 ROLLER I (sugar & conf.) alternate titles: candy mixer; candy roller; center maker, hand; slab worker; stick roller
Kneads soft candy into rolls, cuts rolls into slices, and shapes slices into centers for bonbons or other candies: Dusts worktable with powdered sugar to prevent adherence of candy to table. Kneads slab of soft candy into roll and cuts roll into slices of specified size. Shapes slices to form centers for coated candies. May dump rolls of candy into hopper of machine that automatically cuts and shapes centers, or feed rolls into machine that slices them into loaf-shaped sections.
GOE: 06.04.28 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

520.685-010 BATTER MIXER (bakery products) alternate titles: mixing-machine attendant
Tends machine that mixes ingredients to produce batter for cakes and other bakery products: Positions mixing bowl under mixer and attaches water hose. Selects and installs beater in mixer, according to type of batter being produced. Observes meter and moves lever to admit specified amount of water into bowl. Dumps preweighed ingredients into bowl. Starts machine, turns cranks, and sets dials to regulate speed and mixing time. Feels texture of batter to judge desired consistency. Weighs batch of batter to ensure conformance to weight specifications. May mix dough. May be designated according to type of batter mixed as Cake-Batter Mixer (bakery products); Doughnut-Batter Mixer (bakery products); Wafer-Batter-Mixer (bakery products).
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

520.685-014 BATTER MIXER (food prep., nec) alternate titles: batch mixer
Tends machine that mixes ingredients to prepare batter for ice cream cones: Dumps required number of sacks of sifted flour into mixer. Measures or weighs out specified amounts of other ingredients, such as sugar, coloring, water, and baking soda and pours them into mixer. Starts mixer and opens valve to transfer batter from mixer to storage tanks.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

520.685-018 BLENDER-MACHINE OPERATOR (oils & grease)
Tends blending machine that mixes salt with coarse-grained margarine to produce finished product: Weighs specified amount of kneaded margarine and shovels it into open top of blender. Adds specified amount of salt. Starts paddle of blender to mix ingredients. Tips mixing bowl and shovels margarine into handtrucks.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-022 BLENDER, SNUFF (tobacco)
Tends machine that blends cut leaf tobacco, toasted tobacco stems, and sweetener preparatory to being ground into snuff: Hauls tubs filled with tobacco or stems to work area. Raises side of tub and rakes tobacco and stems into hopper of blending machine. Weighs and dumps specified amount of sweetener into hopper. Starts machine and regulates speed of conveyor.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-026 BLENDING-LINE ATTENDANT (tobacco)
Tends conveyors and machines that blend various types and varieties of tobacco with domestic blends of tobacco: Starts conveyors to move continuous flow of tobacco under blenders (revolving spikes) to feeders that add specified types of tobacco, through ordering cylinder, overflow scales, and onto final blending belt. Sets timers to control blending and feeding speeds and sets flow scales to control amount of tobacco fed, following specifications. Forks specified tobacco into feeder at intervals, to obtain desired blend. Observes flow of tobacco and operation of conveyors and machines to ensure efficient operation. Records weight of each lot processed. May be designated according to type of tobacco processed as Turkish-Line Attendant (tobacco); Virginia-Line Attendant (tobacco).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-030 BLENDING-TANK TENDER (beverage; can. & preserv.) alternate titles: blender; blending-kettle tender
Tends equipment to blend citrus fruit juices: Opens valves to permit juices to flow from extractor machines to holding tanks. Fills blending tanks with required amounts of specified juices. Turns on mechanical agitators in blending tanks to mix contents, and pumps mixture to deoiling and pasteurizing machines.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

520.685-034 BRINE-MIXER OPERATOR, AUTOMATIC (can. & preserv.)
Tends machine that mixes water and salt to prepare brine solution for use in preserving or separating food products: Turns valves to transfer solution from mixing machine to storage or separator tanks. Tests specific gravity of solution with hydrometer and adds water or salt to bring solution to specified density. May clean machinery and equipment, using steam hose, soap, and brushes.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-038 CAKE FORMER (oils & grease) alternate titles: former; former puller
Tends machine that forms cooked oilseed meats into cakes prior to oil extraction: Places cloth on cake-forming tray and presses lever or pedal to position charging buggy (hopper) over tray. Releases oilseed onto tray and folds ends of cloth over oilseed meats. Lowers head (metal block) into position over tray containing meats, and pulls lever to raise tray against head and form oilseed meats into cake.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-042 CAKE STRIPPER (oils & grease)
Tends machine that removes cloth wrapper from pressed cottonseed cake: Inserts end of cloth in which cottonseed cake is wrapped into slotted shaft of cake-stripping machine. Presses pedal to revolve shaft that strips cloth from cake. Places cake onto conveyor for further processing.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-046 CANDY PULLER (sugar & conf.) alternate titles: hard-candy batch-mixer
Tends candy-pulling machine or kneads candy by hand to impart specified flavor, color, and consistency to candy preparatory to spinning and cutting: Kneads and pulls batch of candy. Adds specified amount of coloring and flavoring agents and continues kneading until coloring and flavoring are uniformly distributed and candy feels hardened enough to withstand machine pulling. Hangs kneaded ribbon of candy on hooks of pulling machine and starts machine that pulls candy until it feels sufficiently hardened to retain specified consistency after spinning and cutting. May be designated according to candy pulled as Taffy Puller (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

520.685-050 CANDY-MAKER HELPER (sugar & conf.) alternate titles: candy-cooker helper; whipper-beater
Tends candy making machines that mix candy ingredients: Weighs, measures, mixes, and dumps specified ingredients into cooking utensils. Opens discharge valve, and starts pumps or tilts cooker or kettle to pour cooked candy onto tables or into beaters. May form soft candies by spreading candy onto cooling and warming slabs, cut candy by hand or with machine knife, cast candy in starch or rubber molds, or by machine that extrudes candy. May form hard candies by hand or machine-pulling or spinning. Washes kettles, cookers, machines, and equipment after each batch. Performs other duties as described under HELPER (any industry) Master Title. May be designated according to type of candy mixed or cooked as Caramel-Candy-Maker Helper (sugar & conf.); Nougat-Candy-Maker Helper (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

520.685-054 CASING-FLUID TENDER (tobacco) alternate titles: flavoring maker
Tends vats, tanks, and pumps to mix, store, and transfer flavoring ingredients for use in making casing fluid: Pumps liquid from tank car to holding tanks and from holding tanks into vats for mixing. Adds specified amount of powdered flavoring to liquid in vat and admits steam to vat to blend liquid and powdered ingredients. Pumps mixture into aging tanks or to casing machine storage tanks.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-058 CASTING-MACHINE OPERATOR (dairy products)
Tends machine that forms, cools, and cuts process cheese into slices of specified size and weight: Places forming die into manifold of cheese hopper. Starts refrigerant pump and observes thermometer to cool conveyor to specified temperature. Starts and sets speed of cheese pump which forces cheese through openings in manifold to form ribbons of cheese of specified width and thickness. Threads ribbons of cooled cheese through stacking rolls which pile them on top of each other. Observes lighted panel buttons which indicate off-weight cheese stacks going through automatic cutter, weigher, and counter. Alters speed of cheese pump or presses button to automatically reset speed of conveyor to obtain specified weight cheese. Places cheese stack on scale to test accuracy of automatic weigher. Stops machine to clear jams.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L1 SVP: 3 DLU: 77

520.685-062 CASTING-MACHINE OPERATOR (sugar & conf.)
Tends machine that forms sugar decorations for cakes: Fills machine hopper with prepared sugar mixture. Places sheet of paper on machine bed under die. Turns handwheel on machine to force mixture through die to form decorations on paper sheet. Places filled sheet on rack for transfer to packing department.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-066 CHOPPING-MACHINE OPERATOR (meat products)
Tends machine that chops and mixes ground meat into emulsion for use in making such products as bologna, meat loaves, sausages, and wieners: Dumps

ground meat and premixed seasonings into chopping machine, using fork or hoist, or pulls lever to raise hopper and turns valve to feed meat trimmings into chopping machine. Pours designated amount of premixed seasonings and water or ice into chopping machine to season, moisten, and obtain specified temperature of mixture. Starts machine to mix emulsion to specified consistency. Stops machine and pulls lever to lower center core of mixing bowl and discharge emulsion into pan or truck. Scrapes emulsion from bowl. May push truck filled with emulsion to stuffing machine. May grind meat [MEAT GRINDER (meat products)]. May add ingredients, such as pickles, olives, and pimentos to emulsion.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

520.685-070 CHURN OPERATOR, MARGARINE (oils & grease)
Tends equipment that mixes and churns ingredients to produce margarine: Turns valves to admit preweighed ingredients, such as milk, water, and oil, into mixing vat. Weighs or measures additives, such as emulsifier, preservatives, salt, and vitamins, according to formula, using scale or graduate. Dumps additives into mixing vat. Starts agitator that blends and emulsifies ingredients. Observes temperature gauge and adjusts steam valve to maintain specified temperature in vat. Stops agitator after specified period of time, and turns valve to transfer ingredients to cooling unit. May pasteurize milk [PASTEURIZER (oils & grease)]. May harden emulsion [VOTATOR-MACHINE OPERATOR (meat products; oils & grease)]. May test milk for acidity. May disassemble and clean stock lines, and change filtering apparatus. May mix ingredients for vegetable shortening and be designated Shortening Mixer (oils & grease).
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

520.685-074 COCOA-POWDER-MIXER OPERATOR (sugar & conf.)
Tends machine that mixes dry ingredients to make cocoa blends and dairy powder mixes: Weighs out specified amounts of ingredients, such as sugar, powdered milk, and cocoa, according to formula, and dumps ingredients into mixing machine. Starts machine that mixes ingredients for specified length of time. Opens machine valve and starts conveyor to transfer mixed batch to storage. Collects sample of completed mix for laboratory analysis. May add ingredients and remix batch, according to laboratory recommendation. May be designated according to product mixed as Dairy-Powder-Mixer Operator (sugar & conf.). May tend panel-controlled conveyorized system that transfers measured amounts of ingredients from respective bins to continuous mixing machine and be designated Quick-Mixer Operator (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

520.685-078 CONFECTIONERY-DROPS-MACHINE OPERATOR (sugar & conf.)
Tends one or more machines that extrude chocolate or nonchocolate confectionery mixture through die plate onto conveyor to form such products as stars, chips, or sheets: Attaches specified die plate to machine, using handtools. Starts machine and observes action to ensure that confection is forming according to standards. May clamp metal bar to bed of conveyor to form mixture into sheets. May be designated according to design of product as Chocolate-Drops-Machine Operator (sugar & conf.).
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

520.685-082 COOKER, CASING (tobacco) alternate titles: flavor maker
Tends heated vats to mix and cook tobacco casing fluid ingredients: Admits steam into jacket of vat. Dumps solid ingredients into vat and pours liquids from pail or turns valve to admit liquids, following written or oral instructions. Starts agitator in vat or stirs mixture with paddle to mix ingredients and prevent them from boiling over. Starts pump or removes bung from bottom of vat, after mixture is cooked into syrup, to transfer casing fluid to storage tanks. May measure specific gravity of fluid, using hydrometer, and add water, according to consistency of mix. May weigh or measure cooked ingredients.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-086 DIVIDING-MACHINE OPERATOR (bakery products) alternate titles: roll-dough divider; roll-machine operator
Tends machines that automatically divide, round, proof, and shape dough into units of specified size and weight, according to work order, preparatory to baking: Presses buttons and turns dials or handcranks to start machines and to adjust capacity of dividing compartments and speed of feeding conveyor on dividing machine. Weighs units of dough, using balance scale, and adjusts machine when units vary from standard. Scoops flour or starch into sifters which automatically dust units of dough to prevent sticking. Observes progress of units of dough through machines that automatically round, proof, and shape dough. Turns rheostats to control speed of proofing and molding machine conveyors. Inspects shaped units of dough as they are ejected into pans from molding machine and discards misshapen units. May place dough in pans by hand, position pans in racks, and push racks to holding area for proofing. May fill reservoir of automatic feeding device with seeds, such as sesame, caraway, and poppy seeds, when processing buns. May be designated according to machine tended as Molding-Machine Operator (bakery products).
GOE: 06.04.15 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 79

520.685-090 DOUGH-BRAKE-MACHINE OPERATOR (bakery products)
Tends machine that kneads dough to desired texture: Sprinkles roller and catching apron of machine with flour to keep dough from sticking. Starts machine and turns handwheels to adjust distance between rollers. Cuts off lump of dough in trough and inserts dough between rollers. Catches dough as it extrudes from machine and reinserts it at different angles until texture reaches desired consistency.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-094 FEED BLENDER (grain-feed mills)
Tends agitator tubs that blend ingredients used in making stock feed: Turns valves to admit measured amounts of materials, such as bran, gluten, and steep water into tubs, and starts paddle agitators. Feels sample of mixture to determine if feed consistency meets plant standard. Pulls lever to open sliding gate and drain mixture from tubs.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-098 FEED MIXER (grain-feed mills) alternate titles: batch-mixer operator; feeder operator; mash-feed-mixer operator
Tends machines that mix stock or poultry feed according to formula and conveys it to packing machine or storage: Dumps specified number of sacks of meal, mash, grain, and meat scrap into machine hopper, or presses buttons on control panel to transfer individual ingredients from separate bins to batch scale hopper until specified weight of each ingredient is obtained. Weighs additives, such as minerals and vitamins, and dumps them into hopper. Starts machine to mix ingredients, and starts elevators and conveyors to transfer feed to storage tanks or packing machine hoppers. May match color of mix with standard sample by adjusting automatic feeder controls to regulate amount of ingredient in mix. May adjust nozzles, rheostat, or steam controls to spray heated molasses onto feed. May record weight of feed mixed or ingredients used. May be designated according to type of feed mixed as Dairy-Feed-Mixing Operator (grain-feed mills); Poultry-Feed-Mixer Operator (grain-feed mills); or according to ingredient mixed with feed as Limer (grain-feed mills); Molasses-Feed Mixer (grain-feed mills). May tend machines that automatically weigh out specified amounts of mash and grain prior to mixing with ingredients and be designated Feeder Operator, Automatic (grain-feed mills).
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

520.685-102 FLAKING-ROLL OPERATOR (grain-feed mills) alternate titles: flake-or-shred-roll operator; roll operator
Tends machine containing rolls that form cooked grain into flakes, shredded biscuits, or other shapes to produce cereal products: Moves controls to start pairs of rollers rotating and to convey cooked grain to roll feeders. Turns dials and handwheels to adjust pressure of rollers to maintain specified thickness and consistency of formed product, as indicated by feel and visual inspection, and to control rate of feed of grain through feeding mechanism. Replaces worn knives used to scrape formed grain from roller surface, using handtools.
GOE: 06.04.15 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

520.685-106 FLOUR BLENDER (grain-feed mills) alternate titles: blender
Tends machines that blend and sift flour, and conveyors that carry flour between machines: Starts screw conveyors or turns valves on feed chutes to transfer flour from storage bins to mixing machine, or dumps designated bags of flour into hopper of machine. Starts machine to mix flour and pulls lever to open gate and allow blended flour to flow from machine. Starts separator that sifts mixed flour to remove lumps. Starts conveyors that transfer blended and sifted flour to packing machine.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-110 GREEN-COFFEE BLENDER (food prep., nec) alternate titles: coffee blender
Tends machines that blend various grades of green coffee beans: Transfers sacks of specified grades of green coffee beans to dumping chute, using handtruck. Empties beans onto chute. Starts machine that mixes coffee beans. Pulls levers to dump mixed coffee beans into elevators that convey them to cleaning and storage areas.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

520.685-114 ICING MIXER (bakery products) alternate titles: filler mixer
Tends equipment that mixes ingredients for icing or filling bakery products: Weighs and measures ingredients, such as sugar, chocolate, food coloring, and pulped or ground fruit or nuts, according to recipe. Dumps ingredients into mixing bowl. Selects and installs beater arms in mixing machine, using wrench. Turns dials and pushes buttons to set mixing time, temperature, and speed to start machine. Pours measured amount of water from container into mixing bowl, and adds additional ingredients, as necessary, during mixing cycle to ensure that icing or filling meets company standards. Observes and feels texture of mix to determine when desired consistency has been obtained. May cook some types of icings or fillings in steam-jacketed kettles. May mix meringue for pie topping. May be designated according to product mixed or cooked as Cooker, Pie Filling (bakery products); Fruit Mixer (bakery products); Pie-Filling Mixer (bakery products).
GOE: 06.04.15 STRENGTH: H GED: R3 M1 L2 SVP: 3 DLU: 78

520.685-118 KETTLE TENDER (sugar & conf.)
Tends machine that mixes chewing gum base with powdered sugar: Places spout of vibrating hopper, containing powdered sugar, in top of mixing machine and starts vibrator and mixer. Places container on scale under spout of centrifuge machine and opens valve to allow specified amount of gum base to fill container. Positions container over mixer and opens discharge valve to allow gum base to flow into mixer. Dumps gum requiring reprocessing into mixer to mix with new batch. May substitute glucose syrup for powdered sugar.

GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-122 LOZENGE-DOUGH MIXER (sugar & conf.)
Tends machine that mixes formulated ingredients, such as sugar, syrup, and flavoring to make dough for candy lozenges: Weighs and measures ingredients according to formula, and dumps specified quantity of ingredients into trough of mixing machine. Starts machine that kneads and mixes ingredients, forming dough. Examines and feels mixture for specified consistency and to determine need for additional ground sugar or other ingredients. Scoops lozenge mixture onto tray for further processing. May be designated according to product mixed as Kiss Mixer (sugar & conf.); Mint-Lozenge Mixer (sugar & conf.).
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 4 DLU: 77

520.685-130 MASH GRINDER (dairy products)
Tends mill and agitating vat that grind and mix flour and malt with water, to make malted milk mash: Turns water valve to fill vat and starts grinder and agitator. Transfers flour and malt from storage silo by moving microswitch controls to deposit specified amounts through automatic scale hopper into mill or by placing counters on meters and starting conveyors that carry measured amounts through grinder into vat. Observes ammeter, and grain and water meters to detect deviations from specifications, and moves levers to alter grain and water flow. Pumps mash to mash kettles. May heat mash by mixing steam with water.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

520.685-134 MILL FEEDER (grain-feed mills)
Tends machine that mixes meat scraps, used in poultry feed, into uniform mixture: Starts machine and opens slide gate in hopper to feed scraps into machine. Observes meter and adjusts slide gates in feed hopper to regulate flow of material into machine.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

520.685-138 MIXER (food prep., nec)
Tends automatic grinding and blending machine to prepare condiments, such as dry and liquid salad dressing mixes, spaghetti sauce mix, garlic spread, and seasoning salts: Weighs out and measures ingredients, such as spices, oils, cheese, and salt. Dumps ingredients into hopper of machine and turns valve to admit specified amounts of liquid ingredients into hopper. Moves controls to adjust speed of grinding rollers. Sets thermostats to maintain specified temperature. Starts machine to mix ingredients for predetermined period. May transfer ingredients from storage to work area, using lift truck.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

520.685-142 MIXER OPERATOR II (chemical)
Tends machine that mixes specified amounts of additives and raw salt to fortify salt products, such as table salt, salt tablets, and block salt: Weighs out specified amounts of additives, such as potassium iodide, magnesium carbonate, garlic, and spices, using scale, and dumps them into drum of mixer. Starts automatic weighing machine that weighs out prescribed amount of salt. Moves levers to transfer salt from scales to mixing drum and starts mixer. Pushes lever to open bottom of mixer and discharge mixed product into packing bins or into feed hopper of tablet compressor. May tend vibrating screens to size salt crystals. May be designated according to product for which salt is mixed as Mixer Operator, Raw Salt (chemical); Mixer Operator, Tablets (chemical); Mixer Operator, Vacuum-Pan Salt (chemical).
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-146 MIXER OPERATOR (beverage)
Tends mixer to produce powdered drink or food: Weighs and measures ingredients according to formula and pours them into mixers, or starts conveyor to move premeasured ingredients into mixer. Starts mixer to mix ingredients for specified time. Compares color of mixture with color chart to ensure product color meets specifications. Moves lever to dump mixture into container or onto conveyor. May be designated according to product mixed as Gelatin-Powder Mixer (beverage); Soft-Drink-Powder Mixer (beverage).
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

520.685-150 MIXER OPERATOR (sugar & conf.) alternate titles: five-roll-refiner batch mixer
Tends machine that mixes such ingredients as chocolate liquor, sugar, powdered milk, and cocoa butter preparatory to making sweet chocolate: Weighs and dumps dry ingredients into mixing machine by hand, hydraulic lift, or conveyor equipped with automatic scale. Observes meters and turns valves to admit measured amounts of liquids into mixer. Observes thermometer and sets thermostat to heat mixer to specified temperature. Starts mixer. Examines mixture to ensure that consistency conforms to standards. Starts conveyor to transfer finished batch to refining machine. May tend automatic sugar grinders or pulverizers [SUGAR GRINDER (sugar & conf.)]. May be designated according to type of mixer used as Melangeur Operator (sugar & conf.).
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L1 SVP: 3 DLU: 77

520.685-154 MIXER-AND-BLENDER (food prep., nec)
Tends machine that mixes and blends food ingredients to produce such products as mayonnaise, mustard and salad dressing, and spices, according to formula: Weighs such ingredients as eggs, salt, spices, and sugar, using scale or weighing hopper. Dumps ingredients into mixing machine. Turns valves to permit measured amounts of such liquids as oil, water, or vinegar to flow from tanks into mixing machine. Starts machine and observes mixing to ensure thorough blending. Starts pumps to transfer contents of mixer to containers, filling machines, or storage tanks. May grind dry ingredients, using grinding machine. May be designated according to product mixed as Egg-And-Spice Mixer (food prep., nec); Mayonnaise Mixer (food prep., nec); Mustard Mixer (food prep., nec).
GOE: 06.04.15 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

520.685-158 MIXER, CHILI POWDER (food prep., nec)
Tends machine that mixes chili powder with other spice ingredients for use as seasoning: Measures and weighs out specified quantities of ground chili peppers, garlic, salt, and other ingredients and dumps them into hopper of mixing machine. Adjusts controls to regulate steam pressure in jacket of mixer and starts machine. Compares sample of mixture with standard sample to ensure that mixture meets color and texture specifications.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L1 SVP: 3 DLU: 77

520.685-162 MIXER, DRY-FOOD PRODUCTS (food prep., nec)
Tends machine that mixes, blends, or kneads ingredients to make dry-food products, such as baking powder, gelatin desserts, pie thickeners, and ice cream powders: Weighs or measures ingredients and dumps them into mixer or opens valve to admit specified amounts of each ingredient into mixer from storage hopper. Admits steam or coolant into jacket of mixer and sets thermostat to maintain temperature in mixer at specified level. Regulates mixing time and speed for mixing, blending, or kneading, and starts machine. May perform acidity tests, using pH meter or may submit samples to laboratory. May add additional ingredients and remix batch on basis of test results or laboratory recommendation. May start conveyor to transfer dry-food product to next process. May be designated according to food product mixed as Baking-Powder Mixer (food prep., nec).
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

520.685-166 MIXING-MACHINE OPERATOR (can. & preserv.)
Tends machine that mixes food ingredients for subsequent processing, canning, or freezing: Loads hopper of mixer with premeasured quantities of ingredients by hand, conveyor, bucket hoist, or by opening valves. Starts mixer and observes operation to ensure thorough blending. Pulls lever to tilt and empty mixer or uses scoop to empty mixture into chute, hopper, or container. May weigh out and measure ingredients, using platform scale and measuring containers. May observe and control conveyors and filling machines in processing line to ensure continuous operation.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

520.685-170 MIXING-TANK OPERATOR (oils & grease)
Tends equipment that mixes ingredients for use in producing margarine: Turns valve to admit liquid ingredients, such as water or milk, into mixing vat. Dips measuring stick into vat and closes valve when liquid reaches specified level. Weighs specified quantities of dry ingredients, such as salt and powdered milk, and empties ingredients into vat. Starts agitator to mix liquid and powdered ingredients for specified time. Turns valve to empty mixed ingredients from vat for further processing.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

520.685-174 MOLDER, MEAT (meat products)
Tends stuffing machine that fills molds with meat emulsion to form meat loaves: Slides mold under discharge nozzle of stuffing machine and moves lever to discharge emulsion into mold. Removes filled molds and places them on racks for further processing. May fill molds with meat cuts or whole pieces of meat by hand or using compressed air plunger and be designated Hand Molder, Meat (meat products). May stuff bologna and canadian bacon into casings by hand. May close ends of filled casings with metal clip and by tying with string.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-178 PELLET-MILL OPERATOR (grain-feed mills) alternate titles: feed-and-pellet operator
Tends machine that presses ingredients into feed pellets for poultry and stock feed: Turns steam valves to regulate temperature of machine. Observes ammeter and turns valves to regulate flow of material to machine. May adjust nozzles to regulate flow of molasses into ingredients and turn steam valves to regulate temperature of molasses. May adjust flow of air to cool pellets in cooler. May tend bucket elevator equipment to transfer pellets to storage. May adjust rollers to crush pelletized feed into crumbles. May mix poultry or stock feed preparatory to pelletizing [FEED MIXER (grain-feed mills)].
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-182 PRESS OPERATOR, MEAT (meat products)
Tends machine that presses such meats as bacon slabs, beef cuts, hams, and hog butts, into shape to facilitate slicing or packing: Positions meat on table of pressing machine and depresses pedal or pulls lever to lower ram onto meat that compresses meat into shape. Removes meat from machine and places in container, or on conveyor for transfer to slicing machine. May tend slicing machine [SLICING-MACHINE OPERATOR (dairy products; meat products)]. May be designated according to cut of meat pressed as Butt Presser (meat products); Ham Molder (meat products).
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

520.685-186 PRESS TENDER (food prep., nec)
Tends battery of presses that automatically mix ingredients, and knead and extrude dough for use in making macaroni products: Installs specified dies in presses, using handtools. Sets automatic weighing device. Opens valves to

admit prescribed ingredients into mixing unit and turns dials that control rate of flow of material through processing units. Starts machines that trim and rack extruded strands of long goods over drying sticks (rods) and convey them into preliminary drying chamber, or extrude short goods onto conveyor chutes leading to series of driers. Observes presses in operation to ensure progressive movement of mixture. Regulates speed of press to control product quantity. Observes color of dough and feels its consistency to determine, from knowledge and experience, if product conforms to standard. May be designated according to type press product as Press Tender, Long Goods (food prep., nec); Press Tender, Short Goods (food prep., nec).
GOE: 06.02.15 STRENGTH: H GED: R3 M1 L1 SVP: 4 DLU: 77

520.685-190 PRETZEL-TWISTING-MACHINE OPERATOR (bakery products)
Tends machine that automatically rolls, cuts to size, and twists dough to form pretzels and conveys them to oven: Turns knobs to adjust machine to roll and cut dough to specified thickness and length. Loads dough into machine hopper and starts machine. Observes processing of dough through machine to detect broken or misformed pretzels. Stops machine to clear jams. May be designated according to type of pretzel formed as Pretzel-Stick-Machine Operator (bakery products).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-194 RELISH BLENDER (can. & preserv.) alternate titles: relish maker
Tends machine that blends diced pickles with other ingredients to make relish: Weighs out specified quantity of diced pickles in barrel, using floor scales, and dumps pickles into blending tank, using automatic hoist. Pumps cooked mixture of sugar, syrup, spices, and preservatives into blending tank. Starts agitator in blending tank and observes process to ensure thorough blending. Opens valve to transfer relish to bin for packing.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-198 ROLLING-MACHINE OPERATOR (sugar & conf.) alternate titles: candy-rolling-machine operator; cut-roll-machine operator; roller operator
Tends machine that rolls slabs of candy to specified thickness prior to cutting: Turns handwheel to adjust clearance of rollers to accommodate thickness of slab without binding. Starts machine and feeds slab of candy between rollers. Reverses rollers to return candy for removal. Readjusts rollers and continues operation until candy is rolled to specified thickness.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-202 SAUSAGE MAKER (meat products)
Tends machine that mixes ingredients, such as ground meat and condiments, to make sausage, according to formula: Weighs ingredients and dumps them into mixing machine. Starts machine that mixes ingredients. Empties mixed ingredients into containers. May grind meat. May fill casings with bulk sausage [BULK-SAUSAGE-STUFFING-MACHINE OPERATOR (meat products)].
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

520.685-206 SAUSAGE MIXER (meat products)
Tends machine that mixes ground meat and condiments to make bulk sausage: Shovels meat into bowl of mixing machine and adds specified amounts of seasonings. Starts machine, observes thermometer, and adds water or ice to bowl to regulate temperature of mixture. Moves lever to tilt mixing bowl and empty contents into cart. Scrapes meat from bowl and mixing paddles.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

520.685-210 STUFFER (meat products) alternate titles: sausage stuffer
Tends equipment that forces meat emulsion into casings to make meat products, such as linked sausages, frankfurters, and wieners: Lifts lid from compression cylinder and shovels meat emulsion into cylinder. Tamps emulsion with shovel to remove air pockets and replaces lid. Turns valve to admit compressed air into cylinder. Slides casing over discharge nozzle and moves lever to discharge emulsion into casing. Ties knot in end of filled casing, or seals casing with clipping device to prevent loss of emulsion. May tend machine that automatically fills, links, and ties casings with wire band. May feed filled casing into linking machine. May tend stuffing machine that fills casings with bulk sausage and be designated Bulk-Sausage-Stuffing-Machine Operator (meat products).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-214 SWEET-GOODS-MACHINE OPERATOR (bakery products) alternate titles: bench hand, machine; dough sheeter
Tends machine that automatically rolls (sheets), curls, and cuts sweet goods into specified size and weight preparatory to making rolls, coffee cake, and other sweet goods: Fills dispensing units of machine with such ingredients as oil, cinnamon, and sugar. Adjusts valve to control sprinkling of ingredients on dough and starts machine. Picks up dough from pan and sprinkles with flour. Places dough on conveyor that feeds into sheeting rolls. Observes progress of dough rolling, and stops machine to correct malfunctions. May roll dough by repeated hand feeding through machine to obtain desired consistency.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

520.685-218 TRAY-CASTING-MACHINE OPERATOR (dairy products)
Tends conveyor-type casting machine that pumps process cheese into molds to form slices of specified size and weight: Places paper interleaves in dispenser and presses button to signal for cheese to be dropped into hopper. Starts machine that automatically pumps measured amounts of cheese onto interleaves in trays, and spreads cheese into slices of specified size. Observes weight-indicator light and moves lever to regulate amount of cheese deposited in tray. Straightens interleaves, replaces clogged dispenser, or feeder needle, scrapes cheese from tamper and vacuum openings in tray, and removes malformed slices.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-222 TUMBLER TENDER (food prep., nec)
Tends machine to season potato chips, corn chips, or similar food products: Dumps food products into drum of machine and starts machine that rotates drum. Scoops seasoning from barrel, using measuring cup, and sifts seasoning onto food product in drum. Stops machine after specified time and tilts drum to dump material into container, onto conveyor, or into hopper of bagging machine.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

520.685-226 UNLEAVENED-DOUGH MIXER (bakery products)
Tends five-position mixing machine to mix unleavened dough ingredients, such as flour, eggs, salt, and water in production of matzoh products: Pushes mixing pot onto roller platform and positions pot under automatic filling and weighing devices. Flips switch and turns controls to fill mixing pot with dough ingredients. Observes scale indicators to determine when specified amounts of ingredients have been added. Dumps premeasured pail of condiments into mixing pot. Pushes pot from roller platform onto platform of mixing machine. Depresses button to move platform to each of five mixing positions and to simultaneously agitate mixing fork in mixing pot. Depresses foot pedal to uncradle mixing pot from final position, lifts and pulls pot onto roller platform, and pushes pot onto elevator for conveying to dough-dumping station. Observes machine and auxiliary automatic pot-washing system, and stops machine and notifies supervisor when malfunctions occur. Cleans mixer cover, using brush and airhose, and unscrews mixing fork from spindle for cleaning by other worker.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.685-230 MIXER OPERATOR, SNACK FOODS (food prep., nec)
Tends numerically controlled equipment that automatically mixes oil, water, and mixture of grain products to make dough used in production of snack foods: Reads chart to determine time intervals and sequence for adding oil and water and length of mixing cycle. Pulls knobs to activate control panel and observes lights and dials to verify that panel is functioning. Inspects sections of mixing equipment, such as agitator blades, drum of mixer, and feed hopper to verify that equipment is clean. Adds emulsifier and contents of oil drum into reservoir prior to mixing process, using air-powered pump. Selects and pushes wheeled container of preweighed mixture of grain products or dough scrap into automatic locking device of mixer elevator. Presses specified buttons on control panel to purge air from oil and water lines, open drum door of mixer, raise and dump contents of container into mixer, and activate mixer. Observes digital timer and presses buttons at specified intervals to add predetermined amounts of oil and water, stop mixing process, and dispense dough onto conveyor for further processing. Observes oil and water pipes during mixing process to ensure that oil and water are flowing into mixer. Feels dough on conveyor to detect defects, such as excessively dry, moist, or lumpy dough. Scoops cup of dough from initial batch of mix for quality assurance testing. Notifies supervisor of dough not meeting mixing standards and of equipment malfunction.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

520.685-234 DOUGH MIXER (bakery products) alternate titles: mixing-machine attendant
Tends machines and equipment that automatically mix ingredients to make straight and sponge (yeast) doughs according to formula: Moves controls and turns valves to adjust metering devices that weigh, measure, sift, and convey water, flour, and shortening into mixer, and that measure and dump yeast, vitamins, yeast food, sugar, salt, and other ingredients into mixing machine. Turns knobs or dials to set mixing cycle time and maintain temperature of dough. Starts machine. Feels dough for desired consistency. Positions wheeled dough trough in front of mixer, opens mixer door, and starts mixer to rotate blades and dumps dough into trough. Pushes troughs of sponge dough into room to ferment for specified time. Dumps raised sponge dough into mixer, using hoist, and adds ingredients to complete mixture. Records number of batches mixed. May weigh and measure ingredients which are manually fed into mixer. May dump all ingredients into mixer by hand. May be designated according to type of dough mixed as Bread-Dough Mixer (bakery products); Cookie Mixer (bakery products); Dog-Food Dough Mixer (bakery products); Doughnut-Dough Mixer (bakery products); Pastry Mixer (bakery products); Pie-Crust Mixer (bakery products). May be designated: Cracker-Dough Mixer (bakery products); Pretzel-Dough Mixer (bakery products); Sweet-Dough Mixer (bakery products).
GOE: 06.02.15 STRENGTH: H GED: R3 M3 L3 SVP: 5 DLU: 78

520.686-010 BALL-MACHINE OPERATOR (sugar & conf.) alternate titles: ball-rolling-machine operator; candy roller
Feeds automatic rolling machine that forms pliable candy into shapes, such as balls or disks: Applies colored candy strips onto outside of candy roll to form stripes. Places bulk candy on heated canvas belt. Rolls candy into ropelike shape. Starts machine. Feeds rolled candy into machine that cuts, rolls, cools, and drops shaped candy onto conveyor leading to wrapping department.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

520.686-014 DESSERT-CUP-MACHINE FEEDER (bakery products)

Feeds freshly baked wafers into machine that forms dessert cups: Positions and holds wafer over male die. Withdraws hand as female die forces wafer over male die to form dessert cup.

GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

520.686-018 FEED-MIXER HELPER (grain-feed mills) alternate titles: feeder loader; hopper loader; mixer-machine feeder

Assists FEED MIXER (grain-feed mills) to prepare stock and poultry feed: Dumps sacks of wheat, corn, or other ingredients into hopper of mixing machine. Stirs ingredients in hopper, using paddle to facilitate flow into mixer. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

520.686-022 FLOUR-BLENDER HELPER (grain-feed mills) alternate titles: blender helper; bolter helper; flour-mixer helper

Fills hopper of blending machine with flour to assist FLOUR BLENDER (grain-feed mills): Moves sacks of flour from storeroom to blending machine, using handtruck, forklift, or electric hoist. Cuts sacks open and dumps contents into hopper of machine, or turns hand screws or moves levers to adjust gate openings of overhead storage bins to release specified amounts of flour into blender hopper. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

520.686-026 GLUCOSE-AND-SYRUP WEIGHER (sugar & conf.)

Weighs specified amounts of glucose and flavoring syrup for use in making chewing gum: Places container on wheeled scale and positions container under glucose tap. Fills container with specified weight of glucose. Adds syrup to glucose until prescribed weight of combined ingredients is reached. Pours ingredients into mixing machine.

GOE: 06.04.28 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

520.686-030 MOLDING-MACHINE-OPERATOR HELPER (sugar & conf.) alternate titles: mogul feeder; stack puller

Feeds candy-filled starch molding trays onto conveyor or into feed rack of machine that empties trays, removes starch from candy, and deposits candy on trays or conveyor for packing and shipment. Positions trays under machine to receive molded candy. Stacks filled trays and transfers them to drying area, using handtruck. May dump trays of candy into hopper of machine that shakes starch from candy and be designated Starch Dumper (sugar & conf.).

GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

520.686-034 PLUG SHAPER, MACHINE (tobacco)

Feeds lumps of tobacco into shape cells of automatic press that compresses lumps into plugs of chewing tobacco.

GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

520.686-038 TAMALE-MACHINE FEEDER (food prep., nec)

Feeds machine that automatically encases ground meat mixture with cornmeal mixture to form tamales: Fills respective hoppers with cornmeal and ground meat mixture and presses button to start machine. Removes formed tamales from conveyor, wraps tamales in corn husks, and packs them in plastic containers.

GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

520.687-010 BLENDER LABORER (tobacco)

Moves leaf tobacco loaded on dollies to blending line from storage room in tobacco processing plant: Observes workers feeding tobacco onto blending conveyor to determine when supply of tobacco needs replenishing. Reads grade on card above worker and locates same grade in storage area. Pulls dolly loaded with tobacco from storage into position along blending line, using hook. Unties burlap sheet wrapped around tobacco, using pliers. Removes sheets and dollies from work area.

GOE: 06.04.40 STRENGTH: V GED: R1 M1 L1 SVP: 1 DLU: 77

520.687-014 BLINTZE ROLLER (food prep., nec) alternate titles: cheese-pancake roller

Fills precut sheets of egg dough with cheese, folds ends over filling, and rolls lengthwise to make blintzes (rolled cheese pancakes). Places blintzes on conveyor leading to packer.

GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

520.687-018 CANDY MOLDER, HAND (sugar & conf.) alternate titles: molder, hand; novelty-candy maker; paste worker

Pours liquid candy into chilled molds to form solid candy figures, such as animals or Christmas trees: Dumps or pours candy into warming pan and turns dial to heat product to pouring temperature. Stirs candy to facilitate melting and pours it into chilled mold. Taps or tilts mold to distribute candy uniformly throughout mold. Opens mold when candy has congealed and removes figure. May be designated by type of candy molded as Chocolate Molder (sugar & conf.).

GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

520.687-022 CANDY SPREADER (sugar & conf.) alternate titles: candy-maker helper

Pours and spreads batches of cooked candy, such as fudge, caramel, or toffee, in pans or trays, or onto temperature-controlled slabs preparatory to cutting: Covers pan, tray, or slab with wax paper, dusts lined pan with powdered sugar, or greases with shortening to prevent sticking. Spreads candy to specified thickness, using spatula or roller. May cut candy into sections, using knife, for use by CUTTING-MACHINE OPERATOR (sugar & conf.) or set cutter frames into candy to slice it into individual sections. May roughen surface with scraper to simulate homemade candy or sprinkle chopped nuts or fruit over candy to decorate it. When spreading and cutting bar candy, may be designated Candy Maker, Bar (sugar & conf.).

GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

520.687-026 CASING-MATERIAL WEIGHER (tobacco) alternate titles: casing mixer; top flavor attendant

Weighs and measures ingredients used in making casing fluid, according to formula, using scales and measuring cans: Adds or removes ingredients until specified amount is obtained and dumps or pours ingredients into cooking vats. Opens containers in which ingredients are stored. May assist COOKER, CASING (tobacco) in cooking ingredients.

GOE: 06.04.28 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

520.687-030 FILLER MIXER (tobacco) alternate titles: filler blender; scrap preparer

Mixes various types of cigar filler or plug filler tobacco: Weighs out specified amounts of each type of tobacco and dumps tobacco on floor. Forks tobacco leaves together to obtain uniform mix. Forks mixed leaves into storage bin. May fill bags with blended filler tobacco. May be designated according to type of filler tobacco mixed as Seed And Havana-Scrap Preparer (tobacco).

GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.687-034 FOOD MIXER (grain-feed mills)

Mixes specified amounts of liquid and solid ingredients together to make bird foods. Packs product into molds or containers.

GOE: 06.04.28 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

520.687-038 GUM PULLER (sugar & conf.)

Conveys lump chewing gum from mixer and dumps gum into hopper of machine that rolls and scores gum sheets: Positions cart under door of mixer. Sprinkles sugar by hand over interior surfaces of cart to prevent gum from sticking. Tilts mixing machine and opens door. Pulls quantity of gum from mixer, cuts it with knife, and drops gum into cart. Pushes cart into position over hopper of scoring machine. Tilts rear of cart to dump gum into hopper, using electric hoist.

GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

520.687-042 HOP WEIGHER (beverage)

Weighs hops used in brewing beer: Selects bale of prescribed hops from storage area in hop room and transports bale to work area, using handtruck. Opens burlap wrapping of bale, using knife. Breaks bale into chunks and throws chunks into basket on platform scale. Fills basket to prescribed number of pounds. Wheels filled baskets to brew kettles.

GOE: 06.03.02 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

520.687-046 MEXICAN FOOD MAKER, HAND (food prep., nec)

Performs any combination of following tasks concerned with preparing and packaging Mexican ready-to-serve or frozen foods: Places portions of cooked foods on tortilla. Rolls or folds tortilla over seasoned ground meat, bean, or cheese mixture to form Mexican food item. May garnish food with cheese, peppers, olives, and other condiments. May wrap tortilla around mixture to form characteristic shape and be known as Burrito Maker (food prep., nec). May fill taco shell with meat and be known as Taco Maker (food prep., nec). May encase cheese or meat mixture in tortilla and be known as Enchilada Maker (food prep., nec). May spoon sauce and meat mixture onto tortilla shaped cornmeal dough and wrap product in corn husk or paper and be known as Tamale Maker (food prep., nec).

GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

520.687-050 PLUG SHAPER, HAND (tobacco) alternate titles: shape hand

Compresses lumps of tobacco into plugs of chewing tobacco in hand shapes, performing any combination of following tasks: Greases sinkers to prevent lumps from sticking, using cloth saturated with liquid paraffin or petrolatum. Places sinkers and frames into shape boxes and fills frame cells with specified number of lumps. Positions filled shape box under ram of hydraulic press and turns valve to lower ram onto shapes that compress lumps into plugs. Removes shape boxes from press and sinkers and frames from shape box. Knocks plugs from frame cells, using rake or metal bar. Stacks plugs on table for further processing. Cleans tin plates in washing machine or with cloth and water.

GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 3 DLU: 77

520.687-054 SEASONING MIXER (meat products) alternate titles: spice mixer

Weighs and mixes seasonings, such as salt, pepper, and sage, according to formula, for use in making sausage: Mixes ingredients by hand or in machine. Dumps mixture into containers and attaches tags or marks containers with identifying information. May grind whole peppers in grinding machine. May cube eggs, pimientos, and pickles, by placing them on cutter screen and lowering press to force them through cutters. May peel and cut onions, using knife. May clip one end of meat casings with clipping tool, and stamp date and code on casings and sausage containers, using rubber stamp.

GOE: 06.04.28 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

520.687-058 SYRUP-MIXER ASSISTANT (grain-feed mills)

Empties sacks of ingredients, such as cane and beet sugar, into mixing vats preparatory to making table syrups. Carries containers and materials and cleans vats, using steam hose, as instructed by SYRUP MIXER (grain-feed mills).

GOE: 06.04.40 STRENGTH: V GED: R1 M1 L1 SVP: 2 DLU: 77

520.687-062 SPICE MIXER (can. & preserv.)
Weighs and mixes seasonings and other ingredients to prepare spice mixes, according to formula, for use in flavoring canned food products: Weighs specified ingredients, such as spices, salt, and flour, using scales. Mixes ingredients, using mixing machine, spatula, or portable mixer. Fills containers to specified weight with mix for use in canning process.
GOE: 06.04.28 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

520.687-066 BLENDING-TANK TENDER HELPER (can. & preserv.)
Assists BLENDING-TANK TENDER (beverage; can. & preserv.) 520.685-030 by directing filling of holding tanks and performing related duties: Pulls latch of lid-locking hinge or clips metal band holding lid on barrel of juice concentrate, using clippers, to remove lid from barrel. Signals INDUSTRIAL-TRUCK OPERATOR (any industry) 921.683-050 by hand to guide lifting and positioning of barrel adjacent to opening of holding tank. Manually holds barrel in contact with tank opening as barrel is tilted to dump juice concentrate into tank. Sprays inside of barrel to wash remaining concentrate into tank, using hose. Turns valve of holding tank as directed by BLENDING-TANK TENDER (beverage; can. & preserv.) to open flow of concentrate into blending tank and to fill blending tank to specified capacity. Cleans residue and film from equipment and floors following processing, using waterhose, cleaning solution, brushes, and rags.
GOE: 06.04.40 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 86

521 SEPARATING, CRUSHING, MILLING, CHOPPING, GRINDING, AND RELATED OCCUPATIONS

This group includes occupations concerned with setting apart materials in a mixture by filtering, sifting, straining, squeezing, precipitation, centrifugal pressure, or agitation, and breaking materials and reducing them to smaller size by compression, chipping, and smashing.

521.130-010 MILLER SUPERVISOR (grain-feed mills) alternate titles: miller, first; miller, head; mill operator
Supervises and coordinates activities of workers engaged in cleaning and grinding grain and in bolting flour to ensure milling, according to specifications. Feels flour during processing and adjusts grinding rolls and other equipment to mill product to specifications. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

521.130-014 SUPERVISOR, POWDERED SUGAR (sugar & conf.)
Supervises and coordinates activities of workers engaged in pulverizing and packing powdered sugar. Inspects pulverizing station to verify that grinders are not overheating, load on electrical system is within specified limits, and dust collector system is operative. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

521.131-010 SUPERVISOR, RICE MILLING (grain-feed mills)
Supervises and coordinates activities of workers engaged in milling rice: Reviews instructions covering grade and amount of rice to be milled, and plans operations accordingly. Issues instructions for adjusting shelling-stones, rice hullers, rice-cleaning machine, rice grader, rice polishing equipment, reel, scalping machine and other milling machinery. Observes milling process, examines rice, and issues instructions for adjustment of machinery to maintain quality and quantity of product. May inspect and repair machinery. May plan installation of machinery. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

521.132-010 MILL PLATFORM SUPERVISOR (sugar & conf.)
Supervises and coordinates activities of workers engaged in grinding sugarcane in series of crusher mills to extract juice: Signals workers to regulate speed of conveyors and crusher rollers. Pries cane loose from between rollers to break up jams, using wooden pole. Adjusts tension of rollers to ensure total extraction of juice. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.15 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

521.132-014 SUPERVISOR, THRESHING DEPARTMENT (tobacco)
Supervises and coordinates activities of workers in threshing department of tobacco processing plant: Pushes buttons on control panels to start conveyors and machines. Observes threshing machine units to detect jams and defective machine operations. Removes clogged tobacco, using metal rod or hand, or diverts flow of tobacco to another processing line until jams have been corrected. Feels tobacco to determine moisture content and turns valves to regulate flow of steam and water into ordering machine [ORDERING-MACHINE OPERATOR (tobacco)]. Keeps payroll timecards for subordinates. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 5 DLU: 77

521.137-010 SUPERVISOR, PICKING (tobacco)
Supervises and coordinates activities of workers engaged in removing off-color tobacco, stem particles, and foreign matter from tobacco as it moves along belt conveyors: Observes conveyors to detect malfunctioning. Observes activities of workers picking green and dark tobacco, stem particles, and foreign matter, such as string, dirt, and paper from tobacco to ensure that tobacco is processed, according to instructions. Notifies maintenance department of major breakdowns. Turns knob and moves lever to adjust feed chutes and equalize distribution of tobacco on conveyors. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

521.362-010 CONTINUOUS-ABSORPTION-PROCESS OPERATOR (sugar & conf.)
Controls continuous absorption process equipment to remove coloring from sugar beet juice and gas regenerating furnace to reactivate carbon (burn out impurities): Starts conveyors and elevators to fill absorption tank with activated carbon. Opens valves and starts pumps to force sugar juice through carbon in tank. Observes gauges and recorder readings on panelboard and adjusts controls to obtain constant flow of juice through tank. Draws sample of juice and observes color for conformance to specifications. Diverts flow of juice through standby tank when color of juice does not meet specifications. Moves controls on panelboard to admit fuel and air into regenerating furnace, and presses button that automatically ignites fire in furnace. Starts conveyors and feeders to convey carbon from tank into furnace that removes impurities in carbon. Reads gauges and recorders and adjusts controls to regulate furnace temperature, fuel-air ratio, and feed rate of carbon into furnace. Records operating data in station log.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

521.362-014 MILLER, DISTILLERY (beverage)
Controls equipment to clean and grind whole grain for use in production of distilled liquors: Inspects carloads of whole grain to detect presence of harmful insects, such as weevils and grain beetles. Collects sample of grain from each carload for laboratory analysis. Records number of boxcar from which each sample is taken. Pumps whole grain from boxcars to storage tanks or hopper of cleaning machine, using air-conveyor chutes. Starts automatic cleaning machine that blows and sifts foreign particles, such as dirt, twigs, and stones from whole grain and conveys clean grain to storage tank for further processing. Pumps clean grain from storage tank into hopper balanced on scale and records weight of grain before dumping into grinding machine. Starts grinding machine, and regulates flow of grain from hopper. Pumps ground meal from grinding machine into scale-hopper to compute and record difference in weight of grain before and after grinding. Pumps ground meal into meal tank for further processing. Signals MILLER HELPER, DISTILLERY (beverage) to connect air-conveyor chutes to pumps and storage tanks, clean or change screens on cleaning machine, stop and start pumps, conveyors, and machines, and lubricate moving parts of machines and equipment. Makes minor repairs and adjustments to pumps, air-conveyor chutes, and machines. May be designated according to specific duties as Grain Miller (beverage); Grain-Cleaner-And-Transfer Operator (beverage).
GOE: 06.02.15 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 77

521.362-018 REFINERY OPERATOR (grain-feed mills) alternate titles: control board operator, sugar refining
Controls refinery equipment to produce sugar and sugar products from starch: Reads dials, meters, and gauges, and moves controls to adjust and regulate treating time, temperature, rate of flow and density of sugar liquors through filter and evaporator units. Monitors panelboard to detect and correct equipment malfunctioning. Records processing, control, and other production data in log. Directs REFINERY OPERATOR, ASSISTANT (grain-feed mills) and FILTER TENDER (grain-feed mills) when emergency operation of equipment is manually required, or in operational assignments.
GOE: 06.02.15 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

521.365-010 CHAR-FILTER OPERATOR (sugar & conf.)
Tends bone-char filters to remove soluble impurities and nonsugars from sugar-liquor solutions: Directs CHAR-FILTER-OPERATOR HELPER (sugar & conf.) in filling filter tanks with bone-char and liquor. Inspects installations to ensure that hoses are connected to specified manifold pipe. Posts data on blackboard relating to filter operations, such as starting and ending time and quality of liquor being filtered, filters broken down for char regeneration, and filters being washed to recover sugar in char. Notifies other stations when changing filter hookups to ensure flow of specified liquor. Directs helper in removing filter heads, poking filters to break up layers of diatomaceous earth, and changing manifold setups to ensure continuation of refining.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

521.382-010 EVAPORATOR OPERATOR (can. & preserv.; dairy products; sugar & conf.)
Controls evaporating equipment to concentrate suspensions and solutions to specified degree in vacuum tanks or pans: Pumps liquid into evaporator tank or vacuum pan. Moves switches to start vacuum pumps and maintain specified pressure. Turns valves to admit steam into evaporator chest, coils, tubes, or jackets and regulate steam input to maintain specified temperature. Tests concentration of evaporated solution, using refractometer and hydrometer, and adjusts feeds, temperatures, and pressure accordingly. Pumps concentrated liquid to storage. May tend auxiliary equipment, such as settling tanks, preheating tanks, condensers, and cooling equipment. May supervise workers weighing and mixing batches to predetermined formulas. May pump batch through sterilizer.

May control chiller to reduce temperature of fresh citrus juice. May be designated according to material evaporated as Evaporator Operator, Molasses (can. & preserv.); Tomato-Paste Maker (can. & preserv.).
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 78

521.382-014 SEPARATOR OPERATOR (grain-feed mills)
Operates flotation machine to remove germs (embryos) from cracked grain, and tests product to ensure conformance with standards: Determines specific gravity of cracked grain suspension, using hydrometer. Turns valves to add grain or water to attain specified density. Starts machine that agitates suspension and permits oil-laden germs to rise to surface. Adds liquid of specified density that causes germs to float and tests residue for presence of germs. Makes iodine titration on fluid and suspension leaving germ separator, computes sulfur dioxide content from amount of iodine added, and records test findings. May turn valves to regulate flow of materials to other processes, as directed. May operate shakers to remove bran and other fibers from starch suspension.
GOE: 06.02.15 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

521.385-010 CRACKING-AND-FANNING-MACHINE OPERATOR (sugar & conf.) alternate titles: cracker-fanner operator
Tends one or more cracking and fanning machines that shell and crack cocoa beans and separate shells from nibs (cracked beans) preparatory to further processing: Starts machine rollers and blowers that shell and crack beans and starts conveyors that carry off shells and transfer nibs to treating drum. Turns handwheels to adjust roller pressure so that resultant nibs are of specified size. Moves handles to adjust air supply to blower to ensure thorough separation of shells from nibs. Observes thermometer and turns cold water valve to cool conveyor carrying beans from roaster to cracking fanning machine. May grind nibs to obtain liquid chocolate of specified consistency [LIQUOR-GRINDING-MILL OPERATOR (sugar & conf.)].
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.462-010 REFINERY OPERATOR, ASSISTANT (grain-feed mills)
Controls semiautomatic refinery equipment to convert starch into liquid sugars and concentrate sugars to specific density: Controls pumps and flow of materials through converters, neutralizers, and evaporators, as instructed. Operates equipment manually during breakdowns [CONVERTER OPERATOR (grain-feed mills); NEUTRALIZER (grain-feed mills)]. Observes instruments to detect equipment malfunctions and reports readings to REFINERY OPERATOR (grain-feed mills). Observes equipment to detect and correct fluid leakage or spillage. Tests sample of product to verify specific gravity, acid strength, and filtration, using hydrometer and other standard test equipment. Adds acids or alkalies to neutralize converted sugar liquors, and verifies concentration, using pH meter.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

521.565-010 LIQUOR-BRIDGE OPERATOR (sugar & conf.) alternate titles: liquor-gallery operator; liquor runner
Tends equipment to regulate flow of liquor (sugar solution) from char filters to receiving tanks, as scheduled: Opens valves and starts pumps to maintain flow of liquor into specified storage tank. Places weir box (flow box) under outlet pipe from filter with flow box outlet over gutter leading to tank inlet. Changes position of weir, in accordance with notices from CHAR-FILTER OPERATOR (sugar & conf.), as prescribed by schedules, or when tests of salt content, densities, and purities indicate change in quality of liquor. Regulates flow of soft liquor bypass to attain specified color and purity of soft-sugar liquor (brown sugar). Records hourly readings of soft-liquor flow and purities. Directs LIQUOR-BRIDGE-OPERATOR HELPER (sugar & conf.) in regulating flow and routing of sweetwater and wash waters from char filters. Keeps record of filter operations. Takes samples of liquors for laboratory analysis.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.565-014 MASH-FILTER OPERATOR (beverage) alternate titles: filter-press operator; mash-filter-press operator
Tends filter machine to clarify and separate wort from mash: Observes pressure gauges and turns valves to permit and regulate flow of mash to filter. Starts pump to recirculate wort through filter until sample reveals desired clarity. Turns valve on signal from KETTLE OPERATOR (beverage) to sparge (sprinkle) mash residue with hot water to obtain maximum amount of wort. Measures and records specific gravity of wort with hydrometer and tallies number of barrels obtained from mash. Turns valve to allow flow of cold water to cool mash residue and filter. May be designated according to type of filter equipment as Lautertub Tender (beverage).
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.565-018 SOFT-SUGAR OPERATOR, HEAD (sugar & conf.)
Tends centrifuging and screening equipment that separate brown sugar crystals from syrup and sifts crystals to obtain powdered sugar: Sets spinning, washing, and steam cycles on automatic centrifuges, and resets cycles as necessary to attain specified color and quality of sugar. Turns valves to regulate temperature and levels in mixers, surge hoppers, and supply bins. Gives directions to workers packing sugar in bulk bags. Ensures that containers are weighed, coded, and sealed according to specifications. Keeps production records, and prepares reports as specified.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

521.582-010 SILICA-FILTER OPERATOR (beverage) alternate titles: filter-machine operator
Operates silica-filtering machine to remove protein and yeast particles from beer: Positions filter screens between frames and lowers screens into filter tank, using power winch. Fills mixing tank with specified amounts of silica and water. Starts agitator that mixes water and silica, and starts pump to transfer mixture into filter tank and coat screens. Turns calibrated carbon dioxide air valve to pressurize tank. Starts pump that transfers beer from storage tank through filter screens to strain protein and yeast particles from beer. Drains off sample of beer and examines it for clarity. Starts pump to transfer filtered beer to bottle-house storage tank or to lager cellars for carbonation. Removes screens from tank, using power winch, and rinses screens with water, using hose. Records number of barrels and type of beer filtered on production records.
GOE: 06.02.15 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

521.585-010 CENTRIFUGAL-STATION OPERATOR, AUTOMATIC (sugar & conf.)
Tends battery of automatic batch-type, recycling centrifugals that separate sugar crystals from mother liquor (syrup): Sets timing of cycles on control board, according to type and consistency of syrup being processed. Turns switches on control panel to start centrifugals and regulate flow of solution. Observes colored panel lights, dials, and continuous graphs, and adjusts controls to maintain specified temperature, pressure, and cycling and recycling operations. Adjusts timers or controls as necessary to obtain specified operating conditions. Observes progress of solution through loading, washing, spin drying, and dumping processes to detect faulty operation of equipment. Records operational data.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

521.585-014 MILLER (beverage)
Tends milling machine that grinds malted barley and cereals, such as corn and rice, for use in making brew mash: Starts preset milling machine and conveyor. Pulls chain to open slide gate on storage bin and drop grain onto conveyor for transfer to machine. Weighs milled grain, using scale hopper or machine. Records weight and type of product milled.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.585-018 POWDER-MILL OPERATOR (sugar & conf.)
Tends powder-mill pulverizer that grinds granular sugar into fondant or powdered sugar: Starts powder mill, conveyors, dust collectors, and humidifying equipment to ready station for operations. Opens valves to admit and regulate flow of sugar into pulverizer. Adjusts controls to compensate for changes and fluctuations in production. Dissolves specified amounts of sugar in water and spins solution in centrifugal device to determine starch percentage. Regulates starch flow to bring percentage within specified limits and prevent powder from caking. Dissolves other samples to test them for grist. Cleans dust lines, scrolls, and chutes and clears hopper and elevator blockades. Observes dials and gauges to ascertain that grinders are not overloaded or overheated. Inspects chains, belts, and scrolls for signs of wear. Keeps records of tests and production. May be designated according to type of sugar pulverized as Powdered-Sugar-Pulverizer Operator (sugar & conf.); or equipment operated as Fondant-Machine Operator (sugar & conf.).
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 4 DLU: 77

521.662-010 MILLER, WET PROCESS (grain-feed mills)
Operates fuss and impact mills to crack and grind steeped or degerminated grain, such as corn or milo, to facilitate separation of starch, bran, and gluten: Turns handwheels and moves levers to regulate pinch of buhrs and to control flow of grain through gates. Opens valve to start flow of liquid starch into mill to flush buhrs. Feels ground grain to ascertain if specified degree of fineness is attained. Signals millhouse workers to ensure continuous flow of materials to and from grinding mill. May disassemble mill to install new buhrs, using wrenches and hoist.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 7 DLU: 77

521.665-010 CHAR-FILTER-TANK TENDER, HEAD (grain-feed mills)
Tends char filter tanks that remove undesirable colloids from glucose and corn syrup: Signals FILTER-TANK-TENDER HELPER, HEAD (grain-feed mills) to fill tanks with char (activated carbon) and turn valves to start flow of syrup from storage. Couples flexible pipe to filters to transfer solution to and from filters, or signals FILTER-TANK-TENDER HELPER, HEAD (grain-feed mills) to couple pipe. Collects sample of solution to examine color and measure density, using hydrometer. Reads thermometers and directs workers to turn steam valves to maintain specified temperature. Directs workers engaged in washing activated carbon and informs CHAR PULLER (grain-feed mills; sugar & conf.) when to remove char.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

521.665-014 EXTRACTOR-MACHINE OPERATOR (can. & preserv.)
Tends machines that extract juice from citrus fruit: Starts machines, observes fruit rolling down chutes, and clears jams by prodding fruit with stick. Inspects machine for proper functioning. Examines refuse to determine whether maximum amount of juice had been extracted. Notifies supervisor of needed adjustments or faulty machine operation. Stops machines when signal indicates juice tanks are filled. Lubricates and cleans machines. May make minor adjustments to machines. May change reamer heads for different fruit sizes.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.665-018 FILTER-PRESS TENDER, HEAD (grain-feed mills)
Tends filter presses that remove solids, such as carbon, proteins, and *filtracell*, from solution to produce glucose syrup of standard color and clarity: Turns valves to control flow of material through press. Folds and jams edges

of filter cloths between plates to seal leaks in press, using sharp-edged tool. Observes gauges for increased pressure which indicate need for cleaning presses, and notifies PRESS PULLERS (grain-feed mills) when cleaning is required. Starts agitator and pumps that transfer filtrate into tank. Washes filter cloths in washing machine. May add activated carbon to tank to decolorize filtrate. May tend vacuum or cloth filter press that removes water from corn tailings used in preparing stock feed and be known as Press Tender, Head, Feed House (grain-feed mills).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.665-022 RICE CLEANING MACHINE TENDER (grain-feed mills)
Tends battery of machines that clean rough grain preparatory to milling, and mill, brush, grade, and polish grain: Starts machines, such as shelling stones, grain hullers, paddy separators, grain brush, grain cleaning machine, and grain polisher. Turns wheels to adjust feeder equipment of machines. Turns valves to regulate flow of compressed air into machines to blow chaff and dust from grain. Examines grain during processing to ensure that production and quality standards are met. Adjusts machines. Opens gates on feed pipes to route grain to designated milling machines. Performs maintenance duties, such as scraping sieves in machine with stick to remove dirt, straw, or other foreign material, lubricating equipment, and tightening belts, bolts, and nuts, using mechanics handtools. Gauges height of grain in storage tank, using tape measure. Converts measurement to number of bushels in bin, using conversion chart.
GOE: 06.04.15 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

521.665-026 SIEVE-GRADER TENDER (can. & preserv.)
Tends battery of rotary or oscillating screens that segregate vegetables, such as peas and beets, according to size: Starts motors to activate screens and observes peas passing over screens to prevent clogging and overflow. Observes signal and opens hopper gate to permit peas of specified size and grade to drop into whitening trough for decolorization.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.682-010 CENTRIFUGAL OPERATOR (grain-feed mills; sugar & conf.)
Operates centrifugal machines to separate and wash molasses and mother liquor (syrup) from sugar crystals: Opens gate allowing sugar mass to flow into centrifuge basket. Starts centrifuge that automatically passes through cycles of spinning off mother liquor, washing off molasses, and spinning off washwater. Lifts plate covering bottom of basket, positions cutting arm over sugar and starts machine to cut sugar crystals from inside basket. Washes centrifuge, using hose. May be designated by type of sugar processed as Soft-Sugar Cutter (sugar & conf.); White-Sugar Centrifugal Operator (sugar & conf.); or purpose of operation as Cubelet-Centrifugal Operator (sugar & conf.); Low-Raw-Sugar Cutter (sugar & conf.); Melt-House Centrifugal Operator (sugar & conf.); Remelt-Centrifugal Operator (sugar & conf.); Remelt-Sugar Cutter (sugar & conf.).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

521.682-014 COCOA-PRESS OPERATOR (sugar & conf.)
Operates one or more hydraulic cocoa presses that remove specified amounts of cocoa butter (natural oil of cocoa bean) from chocolate liquor: Starts pump to remove liquor from storage to steam-heated tanks. Observes thermometers and sets thermostat to heat liquor to specified temperature. Sets pressure gauge and stroke of ram on cocoa press, according to specifications, using handtools. Starts press to activate ram that automatically fills pots with chocolate liquor, extrudes specified amounts of cocoa butter into holding tank, and ejects cocoa cakes onto conveyor. Records weight of cocoa butter as indicated on scale-equipped holding tank. May start pump to move cocoa butter into storage tank through filters or centrifugal separator to remove cocoa residue [COCOA-BUTTER-FILTER OPERATOR (sugar & conf.)]. May fill pots, remove and stack cocoa cakes, and install steel and fiber separator pads by hand when machine is nonautomatic.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

521.682-018 FILTER OPERATOR (grain-feed mills)
Operates filter machine to separate contaminants from cornstarch and controls temperature and specific gravity of starch suspension fed to filters: Turns valves to admit water to dilute starch suspension in standardization tank, until hydrometer indicates specific gravity of solution conforms to specifications. Starts pumps and turns valves to transfer starch suspension between filter and tanks, and to regulate flow of wash water to filter spray nozzles. Reads thermometers and turns steam valves to heat tank coils and maintain specified temperature of water. Assists in changing filter cloths, and repairs or replaces broken filter strings. May flush soiled filter cloths, using hose. May insert wires into filter nozzles to clear clogging. May standardize starch suspensions in batch tanks after filtering [BATCH-TANK CONTROLLER (grain-feed mills)].
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

521.682-022 FLAKE MILLER, WHEAT AND OATS (grain-feed mills) alternate titles: cereal miller
Operates drier, huller, separator, steel cutter, cooker, and flake roller machines to produce wheat and oats flakes, according to specifications: Adjusts slides in chutes and turns valves to regulate flow of grain to machines. Adjusts flow of air to dry grain and feels grain to determine hulling capability. Observes hulling process and adjusts speed of machines that remove and separate hulls from oats. Turns valves to regulate temperature and moisture in cooker, and adjusts tension on flaking-machine rolls, according to hardness and size of grain.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

521.682-026 GRINDER OPERATOR (grain-feed mills) alternate titles: feed miller; gristmiller; mill operator; roller-mill operator
Operates bank of roll grinders to grind grain into meal or flour: Opens and closes slides in spouts to route grain to various grinders and sifters. Turns wheels to adjust pressure of grinding rollers for each break (passage of grain between rollers), according to grain size and hardness, and adjusts feed chutes to regulate flow of grain to rollers. Inspects product and sifts out chaff to determine percentage of yield. Adjusts rollers to maintain maximum yield. Replaces worn grinding rollers, using handtools. May sift and bolt meal or flour. May clean and temper grain prior to grinding. May direct workers who drain and temper grain and bolt meal or flour. May be designated according to grain milled as Corn Miller (grain-feed mills). May operate burr mills instead of roll grinders to grind grain and be designated Burr-Mill Operator (grain-feed mills).
GOE: 06.02.15 STRENGTH: M GED: R3 M1 L2 SVP: 7 DLU: 77

521.682-030 HULLER OPERATOR (grain-feed mills)
Operates machines to clean rice and remove hulls from rice preparatory to milling: Starts machinery, such as rice cleaner, reel, shelling stones, rice huller, and conveyor. Adjusts gate in spout to regulate flow of rice into reel. Observes cleaning and hulling processes, feels rice, and adjusts machinery to ensure rice is processed in accordance with specifications. Performs related duties, such as lubricating equipment and repairing machinery. May keep production reports. May direct workers in storage of graded rice.
GOE: 06.02.15 STRENGTH: L GED: R3 M1 L1 SVP: 5 DLU: 77

521.682-034 REFINING-MACHINE OPERATOR (sugar & conf.) alternate titles: chocolate-finisher operator; chocolate finisher; chocolate refiner; chocolate-refining roller
Operates refining machines equipped with rollers to grind chocolate paste in accordance with specifications: Starts conveyor to feed chocolate into refiner hoppers. Feels consistency of chocolate in hoppers to determine grinding required. Turns handwheels on machine to adjust clearance between rollers. Opens hopper and starts machine that feeds chocolate between rollers of refining machine. Observes thermometer or feels rollers and turns water valves to obtain specified temperature of rollers. Examines, feels, and tastes ground chocolate paste to ascertain if color, texture, and taste meet standards. Collects sample of paste for laboratory analysis. May observe flowmeters and turn valves to measure out cocoa butter, vegetable oil, and other ingredients, according to formula, and to fortify chocolate in mixing tanks. May scoop refined chocolate paste into wheeled troughs or barrels. May weigh and transport barrels to cold storage rooms, using handtruck.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

521.682-038 SHRIMP-PEELING-MACHINE OPERATOR (can. & preserv.)
Sets up and operates peeling machine to behead and peel shrimp preparatory to canning or freezing: Spaces peeling rolls on machine, according to size of shrimp to be processed and adjusts holding rack bars to intermesh between rolls, using wrenches. Turns thumbscrews to adjust spring tension on holding rack bars, according to shrimp size and turns valves to start water flow over rolls. Starts machine and feed conveyor and spreads shrimp over feed pan at head of rolls to ensure even distribution, using wooden rake. Examines samples of peeled shrimp to ensure conformance with standards. Adjusts roll spacing and holding for tension as required. Dismantles and cleans machine with high-pressure stream from water hose. May sterilize machine parts by directing hot water or live steam over them with hose.
GOE: 06.02.15 STRENGTH: M GED: R3 M1 L2 SVP: 5 DLU: 77

521.685-010 ALMOND HULLER (can. & preserv.)
Tends machine that removes hulls and foreign matter from almonds: Starts machine and dumps almonds into hopper of machine. Moves levers to control flow of almonds from hopper to machine that agitates screens or cylinders to remove hulls from almonds. Turns valve to regulate pressure and directional flow of air that separates loose hulls, twigs and foreign matter from nuts. Observes almonds as they pass on conveyor belt from machine to ascertain that hulls are removed. Changes screens or adjusts cylinders of machine to accommodate different varieties of almonds, using wrench. May sew sacks of almonds. May nail covers on crates filled with hulled almonds.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-014 ALMOND-BLANCHER OPERATOR (can. & preserv.)
Tends almond-blanching machine that removes skins from almonds: Turns valves to fill kettle of machine with water and to admit steam into heating chamber of kettle. Observes steam pressure and water temperature gauges, and turns valves to regulate steam pressure and water temperature, according to specifications. Actuates machine to start flow of almonds into kettle. Turns handwheel to adjust rollers that squeeze skins from almonds. Observes blanched (skinned) almonds as they emerge from blanching machine and makes necessary adjustments to machine to ensure that skins are removed.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-018 ALMOND-CUTTING-MACHINE TENDER (can. & preserv.)
Tends machine that dices, halves, slices, or slivers almond meats: Installs specified cutting blades, using handtools. Actuates machine to start flow of almond meats into machine. Examines cut almond meats to check for conform-

ance with cutting specifications. Adjusts cutting blades as required. Inserts different blades into machine to accommodate various sizes of almonds. Sharpens blades with file or *bench grinder*. May be designated according to function of machine tended as Dicer-Machine Operator (can. & preserv.); Halver-Machine Operator (can. & preserv.); Slicer-Machine Operator (can. & preserv.); Sliver-Machine Operator (can. & preserv.).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-022 BATCH-TANK CONTROLLER (grain-feed mills)
Tends equipment to maintain specific gravity of starch suspensions emerging from filter machines and starch-flushing system, and transfers solution for conversion into sugar and glucose: Dips sample from breaker tank and tests for specific gravity, using hydrometer. Turns valves to return suspension for reflushing if density does not meet standards. Starts tank agitators to prevent starch from settling. Turns valves and starts pumps to transfer solution to storage tanks.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-026 BLEACHER, LARD (meat products; oils & grease) alternate titles: lard maker
Tends equipment that bleaches and filters unrefined lard or edible oil: Starts pumps to draw unrefined material from storage tank into bleaching kettle. Dumps prescribed amount of fuller's earth into kettle to absorb impurities in material. Starts agitators to mix materials. Turns valves to allow steam or cool water to circulate through bleacher coils to heat or cool material to specified temperature. Draws sample of material for laboratory analysis. Dumps additional fuller's earth in kettle as directed. Inserts new filter cloths on filter plates. Starts pumps to draw material from bleaching kettle and force it through filter-press. Starts pumps to drain bleached and filtered material from filter-press tank into storage tank.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-030 BOLTER (grain-feed mills) alternate titles: sifter operator
Tends banks of sifting and purifying machines that separate fine flour from coarse flour or middlings: Opens spouts and adjusts feed slides to route flour to machines and to regulate flow across sifters without overloading. Feels sifted flour to detect uneven texture that indicates breaks in screens. Pulls screen frames from machine to locate and replace broken screens. Records weights of flour grades produced as indicated on automatic scales. May collect flour samples periodically for laboratory testing. May perform color tests of flour, comparing color of various batches to maintain quality of milled product. May be designated according to machine tended as Purifier (grain-feed mills).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-034 BREAKING-MACHINE OPERATOR (sugar & conf.) alternate titles: breaker operator; cutting-machine operator
Tends machine that breaks scored sheets of chewing gum into tablet size pieces. Starts machine and empties trays of scored gum sheets into revolving drum of machine. Inserts wire mesh basket into opening of machine to collect and withdraw gum tablets.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-038 BRINE-TANK-SEPARATOR OPERATOR (can. & preserv.)
Tends gravity-fed brine-filled tanks that separate young, tender vegetables, such as peas and lima beans, from more matured vegetables: Turns valve to add solution to tank and maintain specified level. Pushes vegetables down chute to prevent clogging, as vegetables emerge from tank. Cleans tank and work area, using scraper and water hose. May mix brine solution [BRINE-MIXER OPERATOR, AUTOMATIC (can. & preserv.)].
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-042 CENTRIFUGE OPERATOR (dairy products)
Tends centrifuge machines that refine liquid wort for use in making malted milk: Assembles and attaches bowl, rings, and cover onto centrifuge, using hoist and handtools. Starts machine, observes tachometer, and adjusts controls to regulate speed. Starts pumps, turns valves, and observes gauges to convey wort through machine at specified pressure. Regulates clarity of wort by observing color and turning valves to alter pressure flow. Removes solids from machine with wooden paddle. Cleans machine with water.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

521.685-046 CENTRIFUGE OPERATOR (grain-feed mills)
Tends centrifugal separator and flotation cells that separate starch from gluten in processing milled grain: Observes recording instruments, turns valves, and moves levers to obtain specified temperatures, specific gravities, and air, water, and product flow rates in centrifuges and flotation cells. Inspects, cleans, and lubricates equipment. Observes gauges and turns valves to maintain level of wash and dilution waters in supply tanks.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

521.685-050 CENTRIFUGE OPERATOR (oils & grease)
Tends centrifuge machines to remove solid impurities and water from animal and vegetable oils: Turns valves to admit steam to jackets of machines. Starts pumps and opens valves to feed oil to machines and to transfer oil to receiving tanks. Observes gauges on machines to determine when temperature is within prescribed range. May rub oil between fingers to detect grit and reprocess oil that does not meet company standards. May open valves to pump oil through one or more settling tanks to separate water from oil. May clean centrifuge and settling tanks. Does not utilize heat when processing essential oils, such as citrus oils, due to volatility of these oils.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

521.685-054 CLARIFIER (grain-feed mills; oils & grease)
Tends equipment that removes sediment and moisture to purify oleo stock: Turns steam valve to heat clarifying tank. Positions strainers across filling vents of tank. Turns valve to start flow of oleo stock through strainers and into tank. Removes foreign material from surface of hot oleo stack, using skimmer. Observes gauges and adjusts steam valves to keep oleo stock heated to specified temperature.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-058 CLARIFIER (beverage)
Tends machine that clarifies wine prior to filtering: Starts pump to transfer fermented wine from settling cask to clarifying tank. Spreads chemicals over surface of wine to aid in clarification, and starts agitator to mix ingredients for specified period of time. Stops agitator to allow suspended matter to settle. Starts pumps to transfer clarified wine to filtering tank. May fumigate empty wine casks with bottled gas and burn sulfur sticks in casks to kill bacteria.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

521.685-062 CLEAN-RICE GRADER AND REEL TENDER (grain-feed mills)
Tends machines that clean, grade, and polish rice: Turns wheels of feeder box to regulate amount of rice on cleaning screen. Adjusts air valve to regulate air draft that removes dust and straw from rice on screen. Regulates air suction in aspirator that cools rice and removes bran. Observes rice passing through reels that separate brewer's rice (broken grains) from rice screenings (larger broken grains) and head rice (whole grains). Adjusts rice grader to ensure required separation of rice screenings from head rice. Tends machine that mixes water and corn syrup used as rice polish. Opens outlet in mixer to permit polish to flow into auger mixer and polish rice.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-066 COCOA-BEAN CLEANER (sugar & conf.) alternate titles: bean dumper
Tends machine that removes from cocoa beans, such foreign materials as stones, string and dirt: Selects bags of cocoa beans, according to instructions and transfers them to hopper of machine, using handtruck; or presses button to start conveyors that move beans from silo to hopper. Opens bags with knife and dumps beans into machine hopper. Positions conveyor spout to direct cleaned beans to specified silo for storage. Starts conveyors and machine that carry beans through air-cleaning system to remove foreign matter. Observes cleaning process to detect machine malfunction or material overflow. Removes and stacks sacks of dirt from discharge spout of air-cleaning system. Examines silo to verify conveyance of specified type of bean.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-070 COCOA-BUTTER-FILTER OPERATOR (sugar & conf.)
Tends press that separates residue from cocoa butter: Reads pressure gauge and starts pump that forces unrefined cocoa butter through filter screen to separate residue from oil and transfers refined cocoa butter to storage. Unclamps door of filter to remove screen and gain access to interior of machine. Flushes and removes residue from screen and filter interior, using scraper and water hose. May treat cocoa butter with prescribed amounts of charcoal and clay to deodorize cocoa butter in treatment tank and filter press. May tend centrifuge to separate cocoa butter from residue and be designated Centrifugal Separator (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-074 COCOA-ROOM OPERATOR (sugar & conf.) alternate titles: cocoa-mill operator
Tends automatic equipment and machinery that pulverizes cocoa cakes into powder of specified fineness and weighs and bags cocoa powders: Starts conveyors to move cocoa cakes through rollers of crusher into hammer mill for grinding into powder, through cooling chamber, and into air classification system which separates powder, according to density. Feels cocoa to ascertain fineness and collects sample for laboratory analysis. Fastens bag to holding tank outlet and pushes button to discharge specified amount of cocoa into bag through automatic weighing device. Verifies weight of filled bags, using scale. Closes bag and stacks bag on skids. May move cocoa cakes from storage area preparatory to dumping into hopper of crusher, using pallets and handtruck.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-078 COFFEE GRINDER (food prep., nec) alternate titles: granulizing-machine operator
Tends machines that grind coffee beans to specified fineness: Pulls lever or adjusts control to regulate flow of coffee beans into grinding machines. Starts machines and turns dials or moves levers to adjust grinding rollers. May control conveyors that carry ground coffee to storage bins.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-082 CORN GRINDER (food prep., nec)
Tends grinding machine that hulls cooked corn and grinds it into masa (cornmeal dough) for use in production of products, such as tortillas and corn chips: Scoops cooked corn into hopper of grinding machine or attaches pipe to outlet on soaking vat and starts pump to transfer corn from holding vat through washer and onto conveyor that carries corn into hopper of grinder. Starts grinder. Feels masa to determine consistency of grind, and adjusts grinding stones when necessary.

GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-086 CORN-GRINDER OPERATOR, AUTOMATIC (grain-feed mills)

Tends semiautomatic machine that crushes and rolls cooked corn into dough for use in various prepared food products: Starts machine and moves controls to set speed of grinder screws and clearance of spreader rollers to produce dough of specified texture and thickness. Fingers handful of dough to verify texture and fineness of grind. Moves controls to synchronize conveyor speed with machine action, maintaining dough supply at efficient level for production of food products by other workers.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-090 CRUSHER OPERATOR (sugar & conf.) alternate titles: carrier operator

Tends series of multiple roller mills that grind sugarcane to extract sugar juice. Moves levers to feed shredded sugarcane into mills.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-094 CRUSHING-MACHINE OPERATOR (beverage) alternate titles: grape crusher

Tends machine that crushes grapes to form must (juice, pulp, and skins of grape) for use in making wine: Starts machine and regulates rate of flow of grapes into crusher. Opens outlet valves to drain must into fermenting tanks. Starts refuse conveyor that removes stems from machine. Removes debris from crusher reservoir (sump) and outlets. Cleans and lubricates machine.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-098 CUTTER, FROZEN MEAT (can. & preserv.)

Tends machine that cuts frozen meats, such as fish, poultry, and beef into pieces preparatory to grinding: Dumps cartons of food product onto cutting table. Starts machine and positions meat in front of pusher. Starts automatic pusher or turns handwheel to push meat into cutter, and to regulate thickness of cut. May record weight of meat cut.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-102 CUTTING-MACHINE OPERATOR (sugar & conf.) alternate titles: candy cutter, machine; cutter, machine; slicing-machine feeder; stripper-machine operator

Tends machine that cuts candy, such as caramel, nougat, or fudge, in pieces or strips of specified size: Cuts slab of candy into sections, using knife. Selects cutting disks, mounted on shaft, according to specified width of cut, and installs cutting disks in machine. Places candy on conveyor that carries it under rotating disks for cutting into strips. Repositions cut strips on conveyor or feeds strips against knife so that slicing occurs at right angle to first cut, forming square or oblong pieces of candy suitable for shipment or further processing. Weighs random samples to ensure conformity of product with size and weight specifications. Dusts candy with flour or starch to prevent sticking. May tend machine equipped with two cutting heads, and device that changes feed angle so that candy is automatically sliced into strips and cut into pieces of specified size and shape. May be designated according to candy processed as Caramel Cutter, Machine (sugar & conf.); Mint-Machine Operator (sugar & conf.); Nougat Cutter, Machine (sugar & conf.).
GOE: 06.02.15 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

521.685-106 DETHISTLER OPERATOR (can. & preserv.)

Tends flotation cleaner that removes materials, such as pod fragments, leaves, or thistles from peas and other vegetables preparatory to canning or freezing: Mixes emulsion solution with water, according to standard formula. Turns valves to fill supply and separator tanks, and pretreater with water, and starts heater, pretreater pump, and recovery reel. Starts separator pump and pours emulsion and oil into air inlet pipe. Pulls lever to allow vegetables to flow into separator tank which floats foreign material out over recovery reel screen. May weigh sample of cleaned peas and compute weight loss.
GOE: 06.04.15 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 77

521.685-110 DRIED FRUIT WASHER (food prep., nec)

Tends machine that washes dried fruit, such as apricots, figs, prunes, and raisins preparatory to canning, packaging, or making specialty foods, such as mincemeat and chutney: Dumps fruit into hopper of machine. Starts machine that rotates fruit rapidly in water to remove dirt and automatically ejects fruit onto receiving tray. May inspect washed fruit and remove foreign matter. May be designated according to dried fruit washed as Apricot Washer (food prep., nec); Fig Washer (food prep., nec); Prune Washer (food prep., nec); Raisin Washer (food prep., nec).
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-114 EGG-BREAKING-MACHINE OPERATOR (can. & preserv.)

Tends machine that breaks eggs and separates yolk from white of egg: Starts machine that automatically breaks eggs and dumps contents into individual cups. Observes eggs for specified yolk and white color, quality, and clarity. Trips cup lever to drop inferior yolk or white before cups enter separator trays. Stops machine to remove contaminated cups.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-118 EXTRACTOR OPERATOR (beverage)

Tends centrifuge or power-driven press that extracts moisture from residue of fermented mash after distillation: Pumps residue from storage tanks into centrifuge, or through filter screens and into power-driven press, that separates so ids from liquids and extracts moisture from residue solids. Starts conveyor o blower system that transfers residue solids to rotary drier for further processin Cleans and sterilizes equipment, using steam cleaning apparatus and alkali solu tions. May maintain and repair equipment, using handtools. May be designate according to equipment tended as Centrifuge Operator (beverage); Press Opera tor (beverage).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

521.685-122 FEED GRINDER (grain-feed mills)

Tends machines that grind, cut, crimp, shell, or roll grain, hay, corncob chaff, and screenings for stock and poultry feed: Opens chute to regulate flo of grain into machine or pitches hay and corncobs into machine hopper. Star machine and adjusts control to regulate speed, according to fineness of grin specified. May tend separator that cleans grain prior to grinding or to si ground grain. May start conveyors and elevators to transfer processed feed t storage or packing machine bins. May fill sacks and weigh them on platfor scale. May be designated according to machine tended as Corn-Cutter Operat (grain-feed mills); Corn-Sheller Operator (grain-feed mills); Crimper Operat (grain-feed mills); Crusher-Machine Operator (grain-feed mills); Hammer-Mi Operator (grain-feed mills); Rolled-Oats-Mill Operator (grain-feed mills).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-126 FILTER OPERATOR (beverage; sugar & conf.)

Tends filtering machines that separate liquids from slurry and remove impur ties: Starts filter, and turns valves to circulate slurry through filtering machin to recover liquids from slurry. Moves controls to regulate speed of drum rota tion and turns valves to regulate vacuum pressure that forces slurry through li uid. Observes discharge of filter cake from drum and adjusts controls to reg late speed of drum rotation. May remove and replace filter cloths and clea drums or plates. May tend equipment that filters, dionizes, and cools bulk win
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-130 FILTER-PRESS TENDER (beverage)

Tends screw-type filter press that removes tartrates from wine or produc sheen on wine prior to bottling: Covers filter plates with cloth pads and tur handwheel to close press. Starts press and turns valves to admit wine throu filters. Starts pumps to transfer filtered wine to storage tanks or bottling roo Replaces filter pads.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-134 FILTER-TANK-TENDER HELPER, HEAD (grain-fe mills)

Tends filter tank that separates undesirable solids from glucose and dextro under direction of CHAR-FILTER-TANK TENDER, HEAD (grain-feed mill Couples pipe to filters and turns valves to control flow of solution from storag Removes filter head, using wrench. Inserts charging spout into opening of filt and pulls lever of sliding gate to admit char (activated carbon) into filter. R places filter head, using wrench.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-138 FILTERING-MACHINE TENDER (grain-feed mills)

Tends filtering machines that separate cornstarch from undesirable prote solids: Starts machine and turns valves to admit starch suspension from ta through filters and to control flow of wash water to filter spray nozzles. O serves thermometers and turns steam valves to maintain specified temperatu of water in tank. Controls flow of water into standardization tanks to regula specific gravity of starch suspension, according to instructions from FILTE OPERATOR (grain-feed mills). Changes damaged filter cloths and flush soiled cloths, using hose. Inserts wire into holes of spray nozzles to preve clogging.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

521.685-142 FINISHER OPERATOR (can. & preserv.)

Tends filtering equipment that separates skins and seeds from tomato sauc chile sauce, and catsup, prior to packaging: Installs specified screens in filteri equipment, using handtools. Places refuse drums under tank outlet to recei skins and seeds. Starts agitating paddles that force sauce through filter scree to separate skins and seeds from liquid. Dips ladle into sauce tank to obta sample for examination. Examines sauce for consistency and presence of ski and seeds that indicate clogged or damaged filter screens. Changes damag screens, using handtools. Starts pump to transfer filtered sauce to holding tank
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-146 FRUIT-PRESS OPERATOR (beverage; can. & preserv.)

Tends power press that extracts juice from fruit: Positions empty filter ba between sections of press, or places frame equipped with filter cloth (blank on press cart. Pulls lever or turns valve to release fruit from hopper or pipeli into bag openings or onto filter cloth. Seals tops of filled bags, using me clamps; or spreads fruit evenly over filter cloth, folds corners of cloth to co fruit, removes forming frame, and pushes cart loaded with fruit into pre Starts press. Removes filter bags or pulls cart from press and dumps fruit pu residue into container. May start pump to transfer juice to storage tanks. M perform duties as member of crew.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-150 GLUTEN-SETTLING TENDER (grain-feed mills)

Tends settling tanks that separate gluten from water: Turns valves to di charge gluten and water from starch tables into tank. Turns and adjusts in

and outlet valves to maintain constant level in tank until water has drained from settled grain. Starts pump that transfers gluten to *plate press*. Pushes remaining gluten from tank, using squeegee, and cleans tank, using hose.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-154 GRADER TENDER (agriculture)
Tends machines that clean and grade seed corn: Starts machines and opens chute gate to permit corn to flow through series of vibrating screens. Adjusts chute slides to regulate flow of corn to reciprocating screens and revolving cylinders that separate corn kernels, according to width, thickness, and length. Examines graded kernels for uniformity, using test screen. Replaces defective screens and cylinders.
GOE: 03.04.01 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-158 GRANULATING-MACHINE OPERATOR (tobacco) alternate titles: granulator operator
Tends machine that cuts tobacco into granular form and screens dust and coarse particles from granulated tobacco: Starts conveyor, cutting knives, fans, and screens. Shovels tobacco into hopper and shoves tobacco between feed rolls of machine that carry tobacco under cutting knives. Observes screening process and removes foreign material left in screened tobacco. Places boxes or trucks at discharge end of machine to catch granulated tobacco.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-162 GRATED-CHEESE MAKER (dairy products) alternate titles: grating-machine operator
Tends grinding, drying, and cooling equipment to make grated cheese: Starts grater, drying drums or drying chamber, heater, blowers, cooling cones, and hammer mill. Dumps cheese blocks into feedbox of grater, and starts ram that pushes cheese against grating wheel. Tests sample of grated cheese for moisture content, using moisture meter, and turns handles or valves to alter conveyor speed or flow of hot air in drier to obtain specified moisture content. Observes gauges on cooling chambers and milling hammers, and notifies supervisor of deviation from specifications.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

521.685-166 GRINDER OPERATOR (grain-feed mills)
Tends grinding mills that process baked or dried bulk cereal products prior to packaging: Starts grinder and opens chute gate on hopper to direct bulk cereal between grinding rolls. Sifts handful of ground and graded cereal through set of screens to determine whether cereal has been ground to specified size. Moves levers to adjust roll clearance in grinder to produce cereal comparable to that of screened sample. Cleans and replaces clogged or worn screens.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-170 HASHER OPERATOR (meat products) alternate titles: mincing-machine operator
Tends machine that chops (hashes) and rinses entrails, fat, and other condemned or inedible parts of carcasses preparatory to rendering: Starts hasher machine and feeds meat onto machine conveyor or into hopper by hand or using pitchfork or shovel. Turns valves to admit water into revolving drum of washer that rinses chopped meat. Dismantles and cleans machine, using wrench and water hose. May cut up whole carcasses, using cleaver. May chill pieces of fat with ice before hashing.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-174 HONEY EXTRACTOR (food prep., nec)
Tends machine that extracts liquid honey from combs: Places decapped honeycombs in baskets of honey-extracting machine and closes cover. Sets clock for specified time cycle and starts extractor machine to pump honey from honeycombs to drums for storage. Stops machine when time bell rings. Removes emptied honeycombs from machine and places them in vacant supers. May cut caps from honeycombs [HONEYCOMB DECAPPER (food prep., nec)].
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-178 HOP STRAINER (beverage) alternate titles: hop separator
Tends machine and equipment to strain hops (used in flavoring beer) from hot wort: Turns valves and starts pumps to transfer wort from brew kettle, through straining machine, and into hot wort storage tank. Starts conveyor which disposes of hops removed from wort. Turns intake and outlet valves to control rate of straining. Observes flowmeters and pressure gauges to determine if equipment is malfunctioning. Inspects strained wort through portholes and sight glasses to ascertain if hops have been removed. Cleans interior and exterior of straining machine with water hose.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-182 HOPPER ATTENDANT (sugar & conf.)
Tends equipment that distributes and screens sugar: Opens hopper gates, and starts, reverses, or stops feed scrolls to distribute sugar to bulk systems and packing station. Adjusts feed of sugar to rotating screens that separate sugar crystals, according to size. Collects samples of grists for laboratory analysis.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-186 HOT-WORT SETTLER (beverage)
Tends equipment to fill tanks with hot wort and permit solids to settle before transferring to cooling machine: Opens valves to admit hot wort from hop strainer to storage tank. Taps (drains) filled tanks after solids have settled. Turns valves, sets float line, and pulls bottom plug to drain wort into cooling line. Climbs into empty settling tank to scrub inside and remove residue, using hose and brush. May read gauges and record amount of hot wort received in tanks.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-190 ION EXCHANGE OPERATOR (beverage)
Tends equipment that removes chemical salts from wine: Starts pump and opens valves to circulate wine through column of synthetic resin crystals to absorb potassium ions from wine. Opens valve to admit water into column to backflush accumulated sediment. Opens valve and starts pump to circulate acid or brine solution through column to regenerate resin crystals. Notifies maintenance engineer of equipment malfunction.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-194 LABORATORY MILLER (grain-feed mills)
Tends machines that clean and grind samples of grain to obtain flour samples for testing: Pours grain into machines to remove chaff, dirt, undesirable seeds, and determine moisture content. Dumps cleaned grain into mill hopper to grind wheat into flour. Dumps flour into machine to sift it into standard flour samples. Dumps samples in container and records identifying data for laboratory information. May perform chemical tests on grain and flour samples.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-198 LINTER TENDER (oils & grease) alternate titles: ginner; linter
Tends battery of linter machines that remove linters (bits of cotton fibers adhering to cottonseed) before seed is crushed and pressed to extract oil: Starts flow of seed into machine. Observes and feels seeds that flow from machine to ensure removal of linters. Turns thumbscrews to regulate pressure of seed against saws. Removes setscrews with wrench and moves shaft holding brushes closer to saws to maintain efficient cleaning operation. May assist LINTER-SAW SHARPENER (oils & grease) to remove saw cylinder for sharpening.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-202 LIQUOR-GRINDING-MILL OPERATOR (sugar & conf.) alternate titles: cocoa-milling-machine operator
Tends one or more grinding mills that grind nibs (cracked cocoa beans) or preground nibs of cocoa bean paste to obtain liquid chocolate of specified consistency: Starts machine and opens slide gate of hopper to release nibs, or turns valve to permit paste to flow through grinding stones. Observes ammeter on machine to determine amount of current produced by friction of grinding stone, and moves handles to adjust clearance between stones. Feels and tastes liquor to ascertain if texture conforms to standards. Draws sample for laboratory analysis. Pumps liquor to storage tanks. May pregrind nibs into paste-like consistency.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-206 LYE-PEEL OPERATOR (can. & preserv.)
Tends machine that removes skins of fruits and vegetables and outer membrane of peeled citrus fruits: Turns valves to admit steam to heat lye solution in tank and to regulate lye and water sprays. Starts conveyor to carry fruit or vegetables through machine. Observes and feels fruit or vegetable emerging from machine to determine if immersion time is sufficient to ensure removal of skin or membrane. May load conveyor by hand. May prepare lye solution by dumping lye chips into tank of heated water. May scald products to loosen skin or peel and be designated Scalder (can. & preserv.).
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-210 MEAL-GRINDER TENDER (grain-feed mills) alternate titles: roller tender
Tends machines that grind grain between rollers: Observes flow of grain between grinding rollers. Adjusts slides to regulate flow of grain to rollers and turns hand screws to regulate space between rollers, under direction of GRINDER OPERATOR (grain-feed mills). Pulls lever to spring rolls apart when grain stops flowing, to prevent damage to rollers. May start conveyor that transports grain from storage area to grinding machines. May lubricate machines. May obtain sample of ground grain for testing.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-214 MEAT GRINDER (meat products)
Tends machine that grinds meat for use in making such products as bologna, meat loaves, and sausages: Pushes truck of cut meat from cooler room to grinding machine. Selects and inserts grinding plate in machine for specified particle size. Shovels meat into machine hopper, using fork, and positions truck under discharge spout. Starts machine. May cut chunks of meat into smaller pieces, using power operated cleaver or slicer. May select and weigh meat in cooler room for grinding.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-218 MEAT-GRADING-MACHINE OPERATOR (can. & preserv.)
Tends grading machine that sorts almond meats, according to size: Loosens turnbuckles to open grading machine, using wrench, and inserts circular grading screens into drum of machine. Closes drum of machine, and turns knob to regulate air pressure, according to specifications. Starts flow of almond meats into machine, and starts machine that sorts almond meats by shaking action that causes smaller almond meats to drop through holes on screens and larger almond meats to run off top of screen onto conveyor belts. Observes almond meats on screen to ensure that they are sorted as required. Tightens or loosens bolt on spindle of machine to adjust shaking action of grading screen to sort almond meats as specified.

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GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-222 MILK-POWDER GRINDER (dairy products) alternate titles: malted-milk mixer

Tends equipment that mills and sifts milk powders: Fastens specified screen in sifter, using handtools, and starts hammer mill, vibrating sifter, and tank agitator. Starts conveyor that transfers coarse, dried powder from sifter to hammer mill. Turns crank to move motor belt and alter speed of hammer mill to obtain specified consistency. Starts pneumatic vacuum blower to convey ground powder through sifter to storage tank. Fills bags or barrels with powder [PACKAGER, MACHINE (any industry)].
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-226 MILL OPERATOR (grain-feed mills)

Tends mills that grind stockfeed: Turns gate valves on feed chute to regulate flow of materials into mills. Starts mills and turns handwheel to adjust distance between rollers to attain desired fineness of grind. Feels sample of product to verify fineness of grind.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-230 MONITOR-AND-STORAGE-BIN TENDER (grain-feed mills) alternate titles: storage-bin adjuster

Tends machine that blows chaff and foreign material from rice and regulates flow of rice to designated storage bins: Starts machine and turns control valve to regulate flow of rice from storage bin to feeder box. Opens valve to release compressed air into machine to blow chaff and foreign material from rice as it passes over sieves. Pulls out slide on top of storage bin to allow rice to flow into bin. Scrapes sieves in machine with stick to remove dirt, straw, and other foreign material. Lubricates equipment and tightens belts, nuts, and bolts.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-234 NUT GRINDER (can. & preserv.)

Tends machine that grinds nut meats into meal: Turns thumbscrew or handwheels to adjust distance between grinding rollers. Fills machine hopper with almond meats, and starts machine. Places container at discharge end of machine to catch emerging nut meal. Inspects sample of ground nut meal for fineness of grind, and adjusts rollers when necessary to ensure that nut meats are ground to specifications. May start vacuum hose to remove foreign matter from nut meats. May be designated according to type of nut ground as Almond Grinder (can. & preserv.).
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-238 NUT-SORTER OPERATOR (can. & preserv.) alternate titles: electric-sorting-machine operator

Tends machine that separates whole nut meats from those that are chipped, broken, or wormy: Turns dials to specified settings to separate nut meats. Connects calibrator to dials to verify settings. Starts machine and observes rejected nut meats to ascertain whether machine is functioning efficiently. Examines dial settings of machine periodically, using calibrator, and adjusts dials when necessary.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-242 OILSEED-MEAT PRESSER (oils & grease) alternate titles: charger; cottonseed-meat presser; pan shaker; pan shoveler; pan shover

Tends hydraulic press that extracts oil from cloth-covered cakes of oilseed meat: Lifts cakes from cake-forming tray, using metal pan (blade), shoves cakes into compartments of press, and withdraws empty pan. Turns handwheel to raise hydraulic ram that presses cakes to extract oil from cake.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-246 PEANUT BLANCHER (can. & preserv.) alternate titles: blanching-machine operator

Tends blanching machine that removes skins from shelled peanuts: Starts machine and pours peanuts into machine hopper. Inspects peanuts as they fall from machine onto moving belt and picks out foreign matter, unblanched peanuts, and peanuts that fail to meet production specifications. May sack blanched peanuts [PACKAGER, HAND (any industry)]. May tend sorting machine that electronically locates and removes unblanched peanuts.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-250 POTATO-PEELING-MACHINE OPERATOR (food prep., nec)

Tends machine that washes and peels potatoes: Loads potatoes into hopper of machine by hand or by use of hoist. Starts machine and equipment that cuts oversized potatoes in half and conveys potatoes through washing and peeling units. Observes operation of machine to prevent jamming and ensure that potato skins are removed. In batch-type machine, adjusts timing device to control stay of potatoes in pot containing abrasive disk. In continuous-type machine, pushes lever to regulate flow of potatoes over abrasive rollers to control amount of skin removed. Inspects peeled potatoes, passing on conveyor belt, and discards rotten potatoes. Cuts up oversized potatoes and removes unsuitable parts, using knife.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-254 PROCESSOR, GRAIN (grain-feed mills) alternate titles: grain cleaner; smutter

Tends grain separating, washing, and scouring machines that remove foreign matter, such as dirt, smut, and rust, from grain preparatory to milling: Adjusts slides in bin spouts and starts elevators to route grain from storage bins to m
chines. Turns valves to regulate water temperature and water level in wash
to adjust air suction to remove dust from separators, and to regulate flow
air through drier. Turns wingnuts to adjust angle of separator screens, accordi
to grain flow and amount of refuse. Hooks bag under end of screen to ca
refuse. Starts machines to process grain and observes flow entering machi
to prevent overloading. Examines processed grain to verify cleanliness. Poun
chutes with mallet to dislodge clogged grain. May tend separating equipm
only and be designated Separator Tender (grain-feed mills) I.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-258 PULP-PRESS TENDER (sugar & conf.)

Tends presses and auxiliary equipment that extract water from beet pulp, a
mix pulp with molasses to produce animal fodder: Starts conveyors, elevat
and presses. Places gates on conveyor belts to divert pulp into automatic pre
es. Opens valve on molasses tank to mix molasses and pulp. Adjusts press
valves, and flow of pulp to obtain pulp and molasses mixture with specifi
moisture content. Takes samples of pulp before pressing, and of pulp and m
lasses mixture for laboratory analysis.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

**521.685-262 PULPER TENDER (can. & preserv.) alternate titles: extr
operator**

Tends machine that extracts juice, and separates seeds and pulp from fr
and precooked fruits, berries, and tomatoes: Places containers under discha
outlets of pulping machine to receive juice, seeds, and pulp. Starts equipm
to pump or convey material through machines or dumps fruit, berries, or ve
tables in machine hopper. Observes passage of juice flowing from discha
outlet to ensure that juice is free of pulp and seeds. Removes filled contain
from discharge outlets. Replaces damaged or clogged filter screen, us
handtools. May adjust paddles in machine, using wrench. May add measu
amounts of salt to tomato juice. May heat berries in open kettle prior to pr
essing in pulping machine. May clean and sterilize machine, using steam ho
May be designated according to product pulped as Tomato-Pulper Opera
(can. & preserv.).
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-266 PULVERIZER (meat products)

Tends grinding mill that grinds dried flake albumen into granules: St
grinder mill and opens chute gate on machine hopper to direct flake albun
between grinder rolls. Fills hopper with flake albumen, using scoop. Exami
granules and adjusts machine roller settings as required, using handtools, to
sure albumen is ground to specified size.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

**521.685-270 RIDDLER OPERATOR (tobacco) alternate titles: toba
cleaner; tobacco-sieve operator**

Tends screening device (riddle) to separate coarse pieces of tobacco from
tobacco: Starts riddle and observes conveyor feeding tobacco into riddle f
cutting machine. Scrapes off coarse tobacco left on flat screen and returns
bacco to cutting machine. Replaces filled boxes of sifted tobacco with em
boxes. May brush tobacco from clogged screens. May be designated accord
to type of tobacco processed as Granulated-Tobacco Screener (tobacco); Sh
Sifter (tobacco); Tobacco-Scrap Sifter (tobacco).
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-274 ROUGH-RICE TENDER (grain-feed mills)

Tends battery of machines that mill and brush cleaned rough rice: Starts
chines, such as shelling stones, rice hullers, paddy separator, and rice br
Turns feed controls to regulate flow of rice into series of machines that a
matically hull rice, separate hulled from unhulled rice, brush dust from hu
rice, and blow off bran. Examines rice visually and tactually, and adjusts
chines to ensure standard product. Inspects machines to ensure efficient mill
Lubricates machines and makes minor repairs.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-278 ROUTING-EQUIPMENT TENDER (grain-feed mills)

Tends equipment that routes rice to milling machines: Opens feed pipe
route rice for each lot to designated milling machines. Turns wheels, bolts,
moves levers to adjust grading machines to obtain specified proportions of
ken and whole grain rice in lot being milled. Performs maintenance on
machinery.
GOE: 06.04.40 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

521.685-282 SCREEN-ROOM OPERATOR (sugar & conf.)

Tends machines that separate sugar crystals, according to grain size:
serves machine vibrating screens to ascertain that sugar is flowing. Cl
screens with brush and regulates vibrations of screens to maintain f
Changes screens by disconnecting sleeves, removing wing nuts, and hois
cover, using block and tackle. Takes sample of screened sugar for labora
analysis. Tightens machine parts loosened by vibration, using handtools.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

**521.685-286 SEPARATOR OPERATOR, SHELLFISH MEATS (can
preserv.)**

Tends machine that separates shell particles and sand from shellfish m
by water and air agitation, preparatory to blanching and canning or free
Turns valves to admit water and air to separator vat as shelled meats
dumped into it from peeling machine or by another worker. Adjusts air vol

and operating time according to bulk and cleanliness of meats in vat. Moves floating meats to conveyor by hand, or by using wooden paddle. Drains vat to remove shells and sand from bottom.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-290 SEPARATOR TENDER II (grain-feed mills)
Tends reels or shakers that separate and remove bran, gluten, or other insolubles from starch suspension: Starts reels or shakers. Turns valves to admit and regulate flow of liquid suspension to separators. Starts conveyor that carries off insolubles separated from suspension. Tests specific gravity of liquid starch to ascertain if separation meets standards, using hydrometer. Cleans shakers or reels with caustic solution and water hose. Replaces worn or broken bearings, springs, and other parts, using handtools. May tend driers to dehydrate brans.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-294 SHELLER II (can. & preserv.)
Tends nut-cracking machine that cracks shells of nuts and separates broken shells from nut meat: Starts machine and turns handwheels to adjust cylinders or rollers and control flow of nuts into machine. Observes cracked nuts emerging from machine to ascertain that they are cracked and separated from shells.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-298 SLICE-PLUG-CUTTER OPERATOR (tobacco) alternate titles: cheese cutter; slice-cutting-machine operator; tobacco cutter
Tends slicing machine that cuts plugs (cheeses) of tobacco into slice-plug smoking tobacco: Arranges plugs in even piles on cutting board. Starts machine and tightens setscrew to feed plugs under reciprocating knife. Holds cut slices together in form of plugs from which slices are cut, using stick. Slides sliced tobacco onto tray. Replaces dull knife blade, using wrench.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-302 SLICING-MACHINE OPERATOR (bakery products)
Tends machine that slices bread, cakes, and other bakery products: Positions and tightens cutting blades and adjusts guides to accommodate size of product to be sliced, using wrench. Starts machine. Places product on conveyor and monitors slicing action of machine. Removes sliced products from machine conveyor and places them on conveyor leading to wrappers. May tend machines that wrap and pack bakery products [PACKAGER, MACHINE (any industry) 920.685-078]. May be designated according to machine tended as Band-Saw Operator, Cake Cutting (bakery products); or according to product sliced as Bread Slicer, Machine (bakery products); Cake Cutter, Machine (bakery products); Wafer Cutter (bakery products).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

521.685-306 SLICING-MACHINE OPERATOR (dairy products; meat products)
Tends one or more machines that automatically slice food products, such as cheese or meat for packaging: Threads roll of interleaf paper into machine. Turns screws to adjust guides on machine for size of food slab, using wrench. Places slab of food on feeder bed. Presses levers to clamp chunk to bed and start feeder. Turns dials to set number and thickness of slices in each stack. Presses switch to start rotating slicer with synchronized devices that cut, count, interleaf, and stack slices of food. Weighs stack and turns dial to regulate thickness of slices to achieve prescribed weight. Removes and replaces imperfect slice with one from spare pile. Places sliced stack on packaging conveyor.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-310 SMOKING-TOBACCO-CUTTER OPERATOR (tobacco) alternate titles: tobacco cutter
Tends machine that cuts cakes of pressed tobacco (cheeses), into granular form for smoking tobacco: Places cake of tobacco on bed of machine and pushes cake between corrugated feed rollers. Catches cut tobacco on tray and feeds ends of slices between rollers, keeping slices in line. Changes dull knife blades, using wrench. Cleans machine, using steam hose.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-314 SNUFF GRINDER AND SCREENER (tobacco)
Tends machines that pulverize chopped tobacco into snuff and sift snuff through screens to remove oversized particles: Presses button to start hammer mill and observes operation of machine to ensure that tobacco is being pulverized into snuff, according to company specifications. Pushes lever to start screener vibrating to sift pulverized snuff. Picks up and rubs handful of snuff between hands to verify that oversized particles have been removed. Adjusts hammer mill or changes filter on screener as needed, using handtools. Observes flow of snuff through screw-type conveyor to ensure that sufficient amount of snuff is fed to packing machine from screener.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

521.685-318 SORTING-MACHINE OPERATOR (can. & preserv.) alternate titles: grading-machine feeder; sizing-machine operator; sorting-machine attendant
Tends automatic-sorting machine that separates fruits, vegetables, shrimp, or pickles, according to sizes: Places baskets, tubs, or crates beneath discharge outlets of machine. Starts machine and dumps boxes of fruit or vegetables in feed chute or opens supply chute to feed material into machine. Removes full containers from discharge outlets and replaces them with empty ones. Cleans, oils, and greases machine, using oilcan or grease gun. May post identifying information on containers.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-322 SPICE CLEANER (food prep., nec)
Tends machine that removes foreign matter, such as rocks, mold, and insects, from spices: Dumps spices into machine hopper. Attaches empty bag to discharge end of machine and starts machine. Inspects cleaned spices to verify that foreign matter is removed. May sew ends of filled bags, using power-sewing machine.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-326 SPICE MILLER (food prep., nec) alternate titles: spice grinder; spice-grinding-mill operator
Tends machines that grind spices, such as cinnamon and chili pepper: Opens storage hopper gate to fill hammer or rolling-type grinding mill with spice. Moves lever to control spice feed and places containers under sifting screen or discharge spout. Examines crushed spices to verify consistency of grind. Cleans or replaces rollers, sifters, and other machine parts. May be designated according to spice ground as Chili-Pepper Grinder (food prep., nec); Cinnamon Grinder (food prep., nec); or according to type of grinding machine tended as Spice Miller, Hammer Mill (food prep., nec); Spice Miller, Rolling Mill (food prep., nec).
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-330 STEM-ROLLER-OR-CRUSHER OPERATOR (tobacco) alternate titles: crusher operator; roller operator
Tends machine that flattens tobacco stems or stems and veins of tobacco leaves: Starts conveyor that feeds tobacco to rollers of machine and forks tobacco onto conveyor. Regulates flow of steam and water to moisten tobacco and clean and cool rollers. May remove flattened leaves from machine and stack leaves in pile or fork flattened stems into hogsheads.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-334 STEMMER, MACHINE (tobacco) alternate titles: stripping-and-booking-machine operator; tobacco stemmer, machine; tobacco-stripping-machine operator; wrapper-stemmer operator
Tends machine that removes stems from leaves of tobacco and arranges stemmed leaves into books: Starts machine and feeds leaf between rollers. Removes stacks of stripped leaves and ties leaves together. Separates leaves according to books of right or left halves. Dumps stems from machine into cans. May be designated according to type of tobacco stemmed as Binder Stripper, Machine (tobacco); Wrapper Stripper (tobacco).
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-338 STRIP-CUTTING-MACHINE OPERATOR (tobacco) alternate titles: shredding-machine operator; tobacco cutter
Tends machine that cuts tobacco into shreds for use in making cigarettes: Starts feeders, ordering drum, conveyors, and cutting machine. Observes operation of conveyors and cutting machine and pulls lever to regulate flow of tobacco on conveyor to prevent jamming. May tighten bolts that hold knives, or may change knives, using wrench and screwdriver, and maintain record of knives used.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-342 STRIPPER-CUTTER, MACHINE (food prep., nec) alternate titles: sawyer
Tends machines equipped with guillotine knives or bandsaw, stick pusher, and deheader, that automatically strip, dehead, and cut macaroni long goods to specified length: Starts elevator to position rack of dried macaroni beside machine. Pulls machine arm that lifts drying stick (rod) of macaroni from rack onto chain conveyor that feeds it onto machine bed. Starts deheading hammer, stick pusher, and knives, and feeds macaroni onto packaging conveyor. Starts machine that automatically strips and dehooks macaroni, and passes it through preset bandsaw to cut product into specified lengths for packaging. Removes cut macaroni from trough and places in box on packaging conveyor line.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-346 SUGAR GRINDER (sugar & conf.)
Tends machine that grinds granulated sugar into powdered sugar: Turns handwheel to set spacing between grinding rollers or stones, or installs gratings in drum of grinding machine to obtain specified degree of fineness. Starts machine and empties bags of granulated sugar into hopper. Observes grinding and discharging process to verify pulverization of sugar to specified fineness and discharge of sugar through air-leg into bags. Removes filled bags from air-leg onto pallet and replaces them with empty bags.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

521.685-350 SUGAR PRESSER (grain-feed mills)
Tends press that removes corn-sugar hydrol from crystallized cakes of sugar. Places cakes in press and turns handwheels to compress cakes and squeeze out hydrol. Releases pressure and removes slabs.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-354 SUGAR-CHIPPER-MACHINE OPERATOR (grain-feed mills) alternate titles: sugar grinder
Tends machine that chips cakes of sugar into pieces: Lifts cakes of sugar onto table of machine having rotating wheel equipped with knives. Starts machine and pushes sugar cakes against wheel that chips cakes into pieces.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-358 SWEET-POTATO DISINTEGRATOR (can. & preserv.)
Tends machine that grinds sweet potatoes into semifluid state to facilitate cooking process: Starts machine and turns handwheel to admit water into discharge chute of conveyor and into machine to lubricate potatoes during grinding process. Starts conveyor that moves potatoes from hopper into chute feeding grinding machine. Observes level of semifluid potatoes fed into receptacle and stops grinding process when receptacle is full. Clears potato jam-ups on conveyor, using rod.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-362 THRESHING-MACHINE OPERATOR (tobacco) alternate titles: stem-cleaning-machine feeder; stem-threshing-machine operator
Tends threshing machine that strips leaf particles from tobacco stems: Starts motor that rotates spike-studded drums or vibrates screen. Forks dried stems onto feed conveyor or opens chute gate to drop tobacco onto feed conveyor. Removes filled catching bag, empties bag into bin or sack, and replaces bag on machine. Removes matted stems from spikes of drum.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-366 TIPPLE TENDER (grain-feed mills)
Tends tipple to dump casings loaded with dried corn starch onto conveyor: Lowers casing into tipple, using hoist. Turns handwheel to dump starch into hopper above moving conveyor, and opens hopper gate to deposit starch uniformly on conveyor.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.685-370 WINERY WORKER (beverage)
Performs any combination of following tasks involved in winemaking: Lifts bulk grapes or dried pomace onto conveyor leading to crusher, disintegrator, or de-alcoholizer still, using pitchfork. Connects portable pumps between tanks and turns valves to pump wine and alcohol from fermenting and fortifying tanks to tanks that cool wine to prevent further fermentation. Pumps chilled wine into clarifying tanks and adds prescribed chemicals to wine. Starts agitator that mixes solution to induce sedimentation of wine particles. Pumps clarified wines through filtering tanks into tank to obtain blended wine. Pumps wine through pasteurizer to prevent wine spoilage. Pumps pasteurized wine through filtering device to collect sediment and precipitates and into tanks in bottling room. Tends press that separates juice from pomace and starts conveyor that transports pomace to disintegrating machine. Starts disintegrating machine and de-alcoholizer steam still that salvages alcohol from pomace, and starts conveyor that transports residue to storage. Cleans and sterilizes fermenting and fortifying tanks and railroad tank cars, using airhose and soda ash.
GOE: 06.04.15 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

521.685-374 WINTERIZER (oils & grease) alternate titles: oil winterizer
Tends equipment that strains stearin from vegetable oils, such as soybean, corn, and cottonseed to produce salad oil: Turns valves to admit oil to chilling tank and to circulate refrigerant through tank coils for specified time to solidify stearin. Opens filter valves and adjusts air pressure to force oil through filters and trap suspended stearin.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.685-378 DEBONER, PET FOOD (can. & preserv.)
Tends deboning-grinder machine that separates flesh from bones to make boneless ground pet food: Positions and secures hopper, screw, and disk assemblies in deboning-grinder machine housings, using wrench, and depresses buttons to activate machine and conveyor. Observes volume of meat parts moving on conveyor into hopper, and adds or removes parts, using shovel, and spreads parts in hopper, using stick, to ensure steady supply of parts to machine. Picks bones and similar matter from parts on conveyor to assist in separating process. Observes processing and adjusts disk assembly when required to maintain specified consistency and volume of ground parts, using ratchet lever. Shovels separated bones and foreign matter into disposal drum. Cleans machine and work area, using hose, brush, and shovel.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 86

521.685-382 FLAVORING OIL FILTERER (beverage)
Tends filtering equipment that removes wax from citrus oil used to make flavoring: Selects formula card according to work order specifications and pours oil and other ingredients into mixing tank. Inserts clean filter pad into filter pump and attaches hoses from mixing tank to filter in prescribed order. Depresses button to activate pump that moves mixture from mixing tank through filtering mechanism to filter and clarify oil. Opens valve of holding tank to collect sample of filtered oil and refilters oil when sample does not meet clarity and color standards. At end of processing, opens valve of holding tank to draw filtered oil into containers. Maintains records of kinds and quantities of materials used and amount of oil processed.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 4 DLU: 86

521.685-386 SCALING MACHINE OPERATOR (can. & preserv.)
Tends machine that removes scales from fish: Turns valve to start spray of water over spiked rollers of scaling machine. Pushes buttons to start and stop conveyor that feeds fish from holding tank into tray at feeding end of machine and to start scaling machine. Feeds fish onto conveyor that moves fish through spiked rollers that remove scales from sides of fish, and that dumps fish into containers.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 86

521.686-010 BOLTER HELPER (grain-feed mills)
Assists BOLTER (grain-feed mills) in tending flour sifting and purifying machines: Opens slides in chutes and starts elevators to route flour between sifters, purifiers, and grinding machines. Observes flour to ensure flow through specified chutes and machines. Pounds on chutes with mallet to keep flour flowing. Brushes cloth sieves in sifters and purifiers to prevent clogging. May adjust flow of water onto belt to temper grain for milling. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.686-014 CAKE PULLER (oils & grease) alternate titles: knocker
Removes cottonseed cakes from hydraulic presses after extraction of oil: Pulls lever or turns handwheel to release pressure on ram. Knocks cake loose and moves it to edge of press, using metal rod. Places cakes on table for removal of press cloth.
GOE: 06.04.19 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.686-018 CHICLE-GRINDER FEEDER (sugar & conf.)
Feeds chicle and gum bases into grinding machine, preparatory to making chewing gum: Loads blocks of chicle or other gum bases onto conveyor of grinding machine, using electric hoist or lift truck. Starts machine and places empty containers under discharge spout to catch ground ingredients. Shovels ground material into barrels on platform scale until specified weight is obtained. May dump salvage gum into grinding machine and be designated Salvage Grinder (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.686-022 COTTON PULLER (oils & grease)
Removes rolls of linters (cotton lint removed from cottonseed) from takeup rolls of linter machine: Places empty roll onto brackets of machine and threads end of material onto roll. Moves rolls of linters to baling room, using handtruck.
GOE: 06.04.19 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.686-026 CUSTOM-FEED-MILL-OPERATOR HELPER (grain-feed mills)
Assists CUSTOM-FEED-MILL OPERATOR (grain-feed mills) in milling grain and feed to customer specifications. Sacks mill products, loads them on truck, and delivers products to customer. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.686-030 CUT-IN WORKER (grain-feed mills)
Opens sacks of rough (uncleaned) rice, using knife, and empties rice into hopper, preparatory to cleaning and storing of rice in bins. Piles empty sacks on handtruck and removes sacks to warehouse.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

521.686-034 FISH-MACHINE FEEDER (can. & preserv.)
Feeds cleaned fish into machines that bone, skin, or cut and pack fish sections into can: Inspects fish to ensure that color, odor, and texture meet standards. Places fish on feed conveyor of machine. May start machines and pull levers to regulate feed conveyor speed. May be designated according to machine fed as Filling-Machine Feeder (can. & preserv.); Fish-Boning-Machine Feeder (can. & preserv.); Fish-Cutting-Machine Operator (can. & preserv.); Fish-Skinning-Machine Feeder (can. & preserv.); or according to activity performed as Fish Flipper (can. & preserv.); Fish Straightener (can. & preserv.).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.686-038 FLUMER (grain-feed mills)
Feeds potatoes into flume (trough) that carries them to washing machine: Removes board covering flume to allow potatoes to fall from stockpile. Scoops potatoes from edges of pile, using wheelbarrow, and dumps them into flume. Adjusts headgates to regulate flow of potatoes into flume.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

521.686-042 FLUMER II (sugar & conf.) alternate titles: beet flumer
Fills flumes (troughs) with sugar beets, performing any combination of following duties: Trips lever on gondola loaded with beets, or removes sideboards on storage bin allowing beets to spill into flume. Prods beets with bar to maintain continuous flow of beets. Washes gondola or storage bin, using water hose. Dumps truckloads of beets into hopper and feeds beets onto conveyor leading to flume or storage bins. Removes leaves, stems, and trash from flume, using shovel or pitchfork. Loads rocks extracted from flume onto dump truck.
GOE: 06.04.39 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.686-046 NUT CHOPPER (can. & preserv.; food prep., nec; sugar & conf.)
Feeds machine that chops nuts: Places container under discharge outlet of chopping machine, scoops nuts into hopper of machine and starts machine. Empties container of chopped nuts as they emerge from machine into trays, sacks, or containers for further processing. May place trays of nuts in steam cabinet for softening, and slice nuts, using slicing machine.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.686-050 PROCESSOR HELPER (grain-feed mills)
Assists PROCESSOR, GRAIN (grain-feed mills) in tending machines and equipment that clean, scour, and separate grain. Regulates flow of grain to machines. Relieves stoppages. Adjusts machines. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

521.686-054 SLICE-PLUG-CUTTER-OPERATOR HELPER (tobacco) alternate titles: slice-cutting-machine-operator helper
Assists SLICE-PLUG-CUTTER OPERATOR (tobacco) to cut plugs of tobacco (cheeses), into slice-plug smoking tobacco. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-010 ALMOND BLANCHER, HAND (can. & preserv.)
Observes blanched (skinned) almonds on conveyor belt emerging from blanching machine and removes almonds with skins missed by machine. Rubs or squeezes almonds between fingers to remove skins. May rub or squeeze skins from almonds that have been immersed in hot water and dumped into trays.
GOE: 06.04.28 STRENGTH: S GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-014 BINDER CUTTER, HAND (tobacco) alternate titles: filler-leaf cutter, long
Cuts leaf tobacco used to bind bunches to specified size. Places tobacco leaf on cutting table against guides and lowers knife blade to cut leaf. Moves guides to obtain cut of specific size.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-018 BINDER SELECTOR (tobacco) alternate titles: binder sorter
Inspects leaves of tobacco before and after stripping to determine whether leaves are suitable for use as binders: Inspects each leaf for holes and tears. Places leaves to be used as binders in bundle for stripping and discards defective leaves. Removes defective leaves from books and places books of perfect leaves in container. May sprinkle water on books that appear dry.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

521.687-022 BONE PICKER (can. & preserv.)
Examines shellfish meats under ultraviolet light and removes pieces of shell, preparatory to canning: Places tray of shelled meats on table, or observes meats passing on conveyor under ultraviolet generators that cause shell particles to glow. Turns and stirs meats by hand to view all sides and picks out and discards bits of shell, viscera, and foreign matter.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-026 BUNCH TRIMMER, MOLD (tobacco)
Draws knife along ends of cigar molds to cut off excess tobacco protruding from molds. Loads trimmed molds onto truck for removal to rolling department.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-030 CHAR PULLER (grain-feed mills; sugar & conf.)
Removes contaminated char (activated carbon) from corn syrup filters for reclaiming: Positions receiving platform at discharge gate of filter to unload used char. Removes nuts to open discharge gate, using wrench. Loosens and pulls char onto receiving platform and into chute to conveyor. Sweeps filters to remove remaining char. Arranges and smooths blankets that cover bottom plates of filter. Replaces gate and tightens nuts evenly to prevent warp and leakage. Cleans char from platform and floor.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

521.687-034 CHAR-FILTER-OPERATOR HELPER (sugar & conf.)
Prepares char filter tanks for sugar-liquor filtration: Attaches hoses between filters and manifold, using wrenches. Removes filter covers, using block and tackle. Positions char chutes and starts conveyors to fill empty filters. Attaches hose from manifold to weir box for mixing liquor with char while filling. Covers filters after filling. Opens air vents to purge air from filled filters. Cleans hoses and drip pans.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

521.687-038 DRIP-BOX TENDER (grain-feed mills)
Positions spout of portable tank containing starch solution over series of boxes lined with cloth and opens valve to fill each box. Inverts boxes after water has drained through cloth to remove solid starch cakes, or scoops out starch with shovel, and places product on handtruck for transfer to kiln. May move levers controlling flow of starch into steel casings and hang casings on hooks of overhead conveyor leading to kiln and be designated Starch Presser (grain-feed mills).
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-042 EGG BREAKER (any industry)
Separates yolk and glair (white) of eggs for use in food products: Strikes eggs against bar, allows contents to fall into bowl, and throws empty shells into receptacle. Smells broken eggs to detect spoiled ones and dumps them into waste container. Pours broken eggs from bowl over egg-separating device. Pulls lever to retain yolk and to allow white to fall into cup below. May be designated according to specialization as Egg Smeller (any industry).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-046 FILLER SPREADER (tobacco)
Separates individual leaves from pads of tobacco leaves pressed together in shipping. Arranges leaves in rows on screen racks. Assists other workers in carrying and lifting screen racks to storage racks.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-050 FILTER CHANGER (beverage)
Replaces soiled filter cakes in beer filter, using handtools. Disassembles filter press and separates plates (frames) to remove old filter pads. Positions clean cakes between plates and reassembles filter.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-054 FILTER-SCREEN CLEANER (beverage)
Cleans filter screens used in diatomaceous-silica filtering machine: Disassembles screens from frame by hand or using wrenches. Flushes residue from screens with water hose or immerses and boils screens in tanks of boiling water. Cleans and reassembles screens and frames, using brushes and handtools. Cleans working area and equipment, using mops and brooms.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.687-058 FISH CHOPPER, GANG KNIFE (can. & preserv.)
Positions fish on cutting table and pulls *gang knife* handle to cut fish into several lengths for packing into cans. May load and distribute trays of cut fish to packers.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-062 FISH-LIVER SORTER (can. & preserv.; fishing & hunt.)
Sorts fish livers, according to species of fish and size, shape, color, and texture of liver: Cuts liver from viscera, using knife, and places liver in specified tub. Discards diseased, spoiled, and poor quality livers. May clean and fillet fish [FISH CLEANER (can. & preserv.; fishing & hunt.)].
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.687-066 FRUIT CUTTER (sugar & conf.)
Cuts dried, fresh, candied, or crystallized fruit into cubes or pieces for candy fillings and for garnishing iced candies, using knife. When opening, pitting, and chopping dates, is designated Date Puller (sugar & conf.).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-070 HONEYCOMB DECAPPER (food prep., nec) alternate titles: comb capper
Cuts caps from commercial honeycombs with hand or motor-driven knife, preparatory to extracting honey: Breaks propolis (beeglue) seals with scraper, and lifts frame of honeycomb from super. Moves honeycomb frame into oscillating knife, or cuts caps from frame, using hand knife. Trims superfluous wax from wooden parts with knife and places frame in stand. May place frames of honeycomb in extractor [HONEY EXTRACTOR (food prep., nec)].
GOE: 06.04.28 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

521.687-074 LABORER, SYRUP MACHINE (grain-feed mills)
Collects rejected cans of corn syrup and pours contents into strainer that removes impurities. Cleans work area and reservoir of filling machines, using water, brushes, and mop. Carries cans and supplies to machines.
GOE: 06.04.39 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-078 LIQUOR-BRIDGE-OPERATOR HELPER (sugar & conf.)
Routes flow of wash water from char filter as directed by LIQUOR-BRIDGE OPERATOR (sugar & conf.): Prepares filter-record board, showing filters to be filled with liquor. Ties clean pockets on filter discharge nipple to prevent splashing in weir boxes. Changes weir boxes to divert flow of sweetwater (wash water from filter containing sugar) or waste water to specified tanks or bays, noting changes on filter record board. Tests water for density to ascertain sugar content, using hydrometer. Bottles samples of liquor and sweetwater for laboratory analysis. Washes weir boxes and keeps work station in sanitary condition.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.687-082 MILLER HELPER, DISTILLERY (beverage) alternate titles: grain-miller helper
Assists MILLER, DISTILLERY (beverage) to clean and grind grain into meal for use in distillation of distilled liquors: Adjusts grain and meal discharge chutes on storage tanks. Removes covers from storage tanks to admit grain and meal. Changes vibrating screens on cleaning machines, using handtools. Places empty grain sacks over discharge ends of cleaning machines to collect dust and refuse. Assists MILLER, DISTILLERY (beverage) to make minor repairs to pumps, air-conveyor chutes, and machines. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

521.687-086 NUT SORTER (can. & preserv.) alternate titles: hull sorter; nut picker; nut sifter; picking-belt operator
Removes defective nuts and foreign matter from bulk nut meats: Observes nut meats on conveyor belt, and picks out broken, shriveled, or wormy nuts and foreign matter, such as leaves and rocks. Places defective nuts and foreign matter into containers. May be designated according to kind of nut meat sorted as Almond Sorter (can. & preserv.), Peanut Sorter (can. & preserv.).
GOE: 06.03.02 STRENGTH: S GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-090 NUT STEAMER (can. & preserv.) alternate titles: steamer operator
Immerses nuts in hot water to soften shells to facilitate shelling process: Turns valve to fill vat or kettle with water. Starts heaters and sets temperature gauge to maintain required temperature. Places nuts, such as almonds, pecans, or walnuts, into wire basket, and lowers basket into vat of hot water, using hoist. Removes basket from vat after specified time.
GOE: 06.04.28 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

521.687-094 PEELED-POTATO INSPECTOR (food prep., nec) alternate titles: potato spotter
Inspects peeled potatoes, passing on conveyor belt. Picks out rotten potatoes. Cuts out unsuitable parts and halves over-sized potatoes, using knife.

GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-098 PICKER (tobacco) alternate titles: lamina searcher; scrap picker; searcher
Removes stems, offcolor tobacco, and foreign material, such as strings, dirt, and paper from tobacco as it moves along conveyor to ensure clean and uniform product. May drop pickings into bags attached to conveyor frame, according to whether pickings are dark tobacco, green tobacco, tobacco with stems, or foreign material. May be designated according to type of tobacco processed as Filler Picker (tobacco); Scrap Sorter (tobacco).
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-102 PICKING-TABLE WORKER (sugar & conf.)
Picks stems, stones, metal, or wood not eliminated by trash-picking machine from conveyor to prevent damage to beet knives. May trim tops from beets to prevent clogging of knives in slicers.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-106 SAUSAGE-MEAT TRIMMER (meat products) alternate titles: beef trimmer; lard trimmer; piece-meat trimmer; piece trimmer; retrimmer
Prepares meat for use in making ground and smoked meat products, such as sausage and bologna: Obtains specified meat from stock and carries to cutting table. Cuts and trims meat from bone and dices meat, using knife, cleaver, and bandsaw. Weighs meat on platform scale and places in tubs. Tags each tub for weight and contents. May grind meat.
GOE: 06.04.28 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

521.687-110 SHAKER (tobacco) alternate titles: bundle shaker; filler opener; filler shaker; hand shaker; tobacco shaker
Shakes hands of cured tobacco to separate, straighten, and expose leaves to air and remove dirt. Places loosened tobacco on table or conveyor for further processing. May be designated according to type of leaf processed as Frog Shaker (tobacco); Wrapper Opener (tobacco).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-114 SHAKER WASHER (grain-feed mills)
Flushes shaker tables and reel panels, using hose, to remove material that clogs mesh and prevents effective separation of starch from bran and gluten. Sponges and rinses back of fabric with detergent solution and water. Removes and installs repaired frames, using wrench and screwdriver, under direction of SHAKER REPAIRER (grain-feed mills).
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

521.687-118 SHELLER I (can. & preserv.) alternate titles: huller operator
Cracks nuts, such as pecans, brazil nuts, and walnuts, using vise. Picks out nut meats and drops meat in container.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-122 SHELLFISH SHUCKER (can. & preserv.) alternate titles: shucker
Shucks fresh or steamed shellfish, such as oysters, clams, or scallops (bivalves), preparatory to canning, freezing, or fresh packing: Holds shellfish firmly or against block and forces shucking knife between halves of shell at hinge juncture. Twists knife to sever muscles holding shell closed and pries open. Cuts shellfish from shell, flips it into container, and discards shell. May break off edges of shells before shucking, using hatchet. May be designated according to shellfish shucked as Clam Shucker (can. & preserv.); Oyster Shucker (can. & preserv.); Scallop Shucker (can. & preserv.).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

521.687-126 SKIN LIFTER, BACON (meat products)
Cuts slit in flank end of bacon slab between meat and skin, using knife, so that slab may be inserted into derinding machine.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

521.687-130 SKULL GRINDER (meat products) alternate titles: head-bone grinder; turbinated-bone grinder
Picks up split and brained hog head and holds nasal passages against revolving emery wheel to clean out dirt. Removes dirt from ear passages. Throws hog head in container.
GOE: 06.04.39 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-134 STEMMER, HAND (tobacco) alternate titles: filler stemmer, hand; leaf stemmer, hand; sprigger; tobacco stripper, hand; wrapper stemmer, hand
Removes stems from tobacco leaves to prepare tobacco for use as filler, binder, or wrapper for cigars, plug, or twist chewing tobacco: Strips leaf from stem, starting at tip end of leaf. Spreads and stacks wrapper leaves in piles, keeping leaves separated into left- and right-hand books. Places filler tobacco and stems in box or can. May be designated according to tobacco stripped as Binder Stripper, Hand (tobacco); Scrap Stripper, Hand (tobacco); Wrapper Stripper, Hand (tobacco).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

521.687-138 TABLE HAND (tobacco)
Forks tobacco from bin onto cutting-machine supply table to supply SMOKING-TOBACCO-CUTTER OPERATOR (tobacco).
GOE: 06.04.40 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

522 CULTURING, MELTING, FERMENTING, DISTILLING, SATURATING, PICKLING, AGING, AND RELATED OCCUPATIONS

This group includes occupations concerned with growing bacteria or othe microorganisms in materials; liquefying solid materials by means of hea breaking down complex molecules in organic compounds by the introductio of a ferment such as yeast; heating a mixture to separate the more volatile fron the less volatile parts and then cooling and condensing the resulting vapor t produce a nearly pure or refined substance; soaking thoroughly, filling, charging, or treating a substance with another so that no more can be taken up; preserving and flavoring materials or products by immersing, coating, or injectin them with preservatives; and subjecting materials or products to the effects o time.

522.130-010 SUPERVISOR, MELT HOUSE (sugar & conf.)
Supervises and coordinates activities of workers engaged in washing centrifuging, and melting bulk raw sugar: Reads production schedule an consults with SUPERVISOR, FILTRATION (sugar & conf.) to ascertain quantity of liquor required. Calculates melting rates of raw sugar, using standard formula. Moves controls to set timing cycles on centrifuges and start machinery such as elevators, scrolls, and pumps. Inspects process stations to verify tha equipment and machinery are operating as specified. Performs other duties a described under SUPERVISOR (any industry) Master Title. May supervis workers engaged in reclaiming contaminated sugars and syrups and be designated Supervisor, Remelt (sugar & conf.).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

522.131-010 DISTILLING-DEPARTMENT SUPERVISOR (beverage)
Supervises and coordinates activities of workers engaged in distilling liquors such as gin, brandy, and whiskey: Verifies specified amount and proof of distilled liquor produced. Directs workers in preparing and storing ingredients such as sour beer. Prepares flavoring ingredients used in distilling gin. Review distillation records to verify adherence to specified formula. Inspects operatin condition of stills and auxiliary equipment. Performs other duties as describe under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

522.132-010 SUPERVISOR, MALT HOUSE (beverage)
Supervises and coordinates activities of workers engaged in producing mal from barley: Adjusts controls on steeping tanks, germinating tanks, and drying kilns, following readings on recording charts. Coordinates steeping, germinating, and drying operations and evaluates operations against quality control laboratory reports. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

522.134-010 SUPERVISOR, BRINEYARD (can. & preserv.)
Supervises and coordinates activities of workers engaged in receiving an brining food products, such as cucumbers, peppers, onions, and cauliflower preparatory to further processing, utilizing knowledge of federal, state, an company standards: Studies weekly production schedule to ascertain quantity and type of products to be processed, and reviews status charts for individua tanks to determine availability of brined products for processing. Instructs workers to move or store products from or into tanks, according to production requirements. Maintains record of transactions for each tank on chart. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: H GED: R4 M3 L3 SVP: 7 DLU: 77

522.264-010 TRAINING TECHNICIAN (can. & preserv.)
Trains and directs workers in methods of processing fish roe: Teaches FISH ROE PROCESSOR (can. & preserv.) 522.687-046 characteristics, such as color, maturity, and outer appearance of membrane of egg skeins (membrane-enclosed ovaries, tissue, and fish roe) to enable worker to recognize skeins of different species, appearance of unacceptable skeins, and commercial grades of skeins. Demonstrates packing procedures, such as method of lining boxes, placement patterns of processed skeins in boxes, and amount of salt to apply to each layer. Directs workers to change brine solution used to preserve skeins and sets timer that controls processing times of skeins in brining vats. Retrains workers as necessary. Sorts, salts, grades, and packs skeins of fish roe [FISH ROE TECHNICIAN (can. & preserv.) 522.384-010]. Tests processed egg skeins for nitrate content, using prepared chemical kit, comparison charts, and following kit instructions. May direct activities of other workers.
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 86

522.362-010 YEAST DISTILLER (beverage) alternate titles: yeast maker
Controls equipment to prepare mixture of mash and yeast for use in manufacture of distilled liquors: Weighs specified quantities of rye and malt meal, depending upon amount of yeast required, and dumps them into yeast tub (cooker) filled with specified amount of water. Opens valves to admit steam that circulates through coil pipes in tub and cooks mixture. Starts revolving blades in tub to agitate mixture as it cooks. Observes temperature gauges and increases or decreases steam pressure to maintain constant temperature as mash cooks. Pours yeast culture into cooked mash and mixes mash with revolving blades. Stops revolving blades when mash and yeast are thoroughly mixed. Tests mash

to determine temperature and specific gravity (proof), using thermometer and hydrometer, and records results. Observes gauges and increases or decreases steam to ensure that mash ferments at constant temperature. Notifies FERMENTATION OPERATOR (beverage) when mash is ready to be pumped into fermentation tank. Removes sample of mash for laboratory analysis.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

522.382-010 COTTAGE-CHEESE MAKER (dairy products)
Controls equipment to make cottage cheese from milk: Washes cheese vat and tools with sterilizing solution and rinse water. Turns valves and observes meters to convey specified amounts of milk and culture into vat. May add rennet to coagulate milk, and dye to tint curd. Turns steam and water valves and observes thermometer and clock to heat milk for specified time and at specified temperature to incubate culture. Starts agitator in vat and stirs ingredients, using paddle. Tests sample of whey for acidity and cuts curd with knife to allow seepage of whey. Observes thermometer and adjusts steam and water valves to cook curd at slowly increasing temperature. Feels and breaks sample of curd to determine when it is sufficiently cooked. Turns cold water and drain valves or sprays curd with chlorinated water to wash curd and remove whey. When making baker's cheese, drains uncooked whole curd from vat into porous bags to remove whey and dumps curd into blending machine to distribute residual moisture. When making creamed cottage cheese, adds cream and stirs with paddle or starts agitator. Records processing steps. May taste cheese for salt and acid content. May pasteurize milk. May make culture.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

522.382-014 FERMENTATION OPERATOR (beverage)
Controls fermentation process of sweet or sour mash inoculated with yeast to produce fermented mash for use in distillation of distilled liquors: Pumps specified number of gallons of cooked mash and yeast into fermentation tank, simultaneously, to ensure that mash and yeast are thoroughly mixed together. Opens valves to admit specified number of gallons of water into mixture, according to formula. Opens valves to circulate steam through coil pipes in tank to heat mixture to prescribed temperature. Turns valves to admit and control air pressure that agitates mixture as it ferments or to accelerate chemical reaction of yeast. Observes gauges or dials to ascertain that prescribed temperature and gas pressure are remaining constant in tank. Tests mash at prescribed intervals to determine temperature and specific gravity (proof), using thermometer and alcohol-proof hydrometer. Compares test results with standard charts to determine when mixture is fully cooked. Regulates steam, air, and gas pressure in tank to ensure that chemical reaction of yeast and fermentation process is taking place, according to formula. Pumps sour mash into cistern tank, preparatory to distilling. Cleans tanks by rinsing them with water.
GOE: 06.02.15 STRENGTH: M GED: R4 M2 L3 SVP: 5 DLU: 77

522.382-018 LIQUOR BLENDER (beverage) alternate titles: filter operator
Controls equipment to regauge, filter, rectify, blend, and verify proof of whiskeys and other distilled liquors, preparatory to bottling: Pumps specified number of gallons of whiskey and deionized water into regauging tanks (reducing tanks) and agitates mixture with compressed air to reduce proof of barreled whiskey. Measures temperature, using thermometer, and specific gravity, using alcohol-proof hydrometer, and compares readings with tables from standard gauging manuals to determine proof of mixture. Pumps regauged whiskey into cooling tank and opens valves to circulate cold water through coil pipes in tank to reduce whiskey to specified temperature before filtering. Starts filter press to remove impurities from distilled liquor, and adjusts valves to control vacuum pressure in press and to regulate flow of liquor through press. Observes dials and gauges to ascertain that temperature and pressure remain constant during filtering process. Pumps different proofs of whiskeys into agitating tank, adds specified amount of deionized water, and agitates mixture to blend whiskeys. Mixes flavorings and other ingredients, according to formula, into mixing tank with specified number of gallons of spirits, such as gin or vodka, and adjusts valves to control temperature and compressed air to produce brandies, cordials, and fortified beverages. May specialize in one phase of processing and be designated according to duties performed as Rectifying Attendant (beverage); Whiskey Filterer (beverage); Whiskey-Proof Reader (beverage); Whiskey-Regauger (beverage).
GOE: 06.02.15 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

522.382-022 MASH-TUB-COOKER OPERATOR (beverage) alternate titles: cooker
Controls equipment to cook grain meal to prepare mash for fermentation process prior to distillation into alcohol, gin, or whiskey: Fills cooker with water and opens valves to admit steam that circulates through pipes in vat and heats water to specified temperature. Pumps ground meal from meal tank into hopper, balanced on scale, to weigh specified amount and turns handwheels to regulate flow of meal into cooker. Starts revolving blades in cooker to agitate mixture as it cooks. Observes temperature gauges to ascertain temperature of mixture in cooker and turns valves to increase or decrease temperature. Cooks mash for specified time and pumps cooked mash into cooling tub. Pumps cooled mash into fermenting tank. Opens valves to admit compressed air, through perforated pipes at bottom of fermenting tank, to keep meal in suspension as it flows from cooling tub into fermenting tank.
GOE: 06.02.15 STRENGTH: M GED: R4 M2 L3 SVP: 5 DLU: 77

522.382-026 STILL OPERATOR II (beverage) alternate titles: beer-still runner compounder; still runner
Controls still from central control board, to distill brandy, gin, vodka, or whiskey: Adjusts valves to control temperature and rate of flow of distilling materials through still and auxiliary equipment, such as stripping column, rectifier, condenser, and *tribox*. Observes gauges, dials, and charts to ensure that temperature and rate of flow of distillants are maintained according to formula, so that specified proof of distilled liquor is obtained. Ascertains temperature and specific gravity of liquor, using thermometer and hydrometer, and compares readings with standard gauging manual to determine proof of distilled liquor. Draws sample of distilled liquor for laboratory analysis. Pumps distilled liquor from tribox into cistern tank to be *regauged*. May be designated according to type of liquor distilled as Still Operator, Brandy (beverage); Still Operator, Gin (beverage); Still Operator, Whiskey (beverage).
GOE: 06.02.15 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 77

522.382-030 STILL OPERATOR I (beverage)
Controls still that produces high-proof alcohol from fermented wine: Records temperature, pressure, flow gauge and meter readings. Sets and adjusts controls to regulate and maintain specified temperature and pressure of unit. Turns valves to regulate flow of alcohol through unit and into storage tanks. Records amount of time consumed during distilling process. Collects alcohol samples for laboratory analysis.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

522.382-034 SUGAR BOILER (sugar & conf.)
Controls vacuum pan sugar boilers to concentrate sugar liquor and grow sugar crystals to specified size: Starts vacuum pump, and opens valves to admit specified amounts of liquor and steam into vacuum pan, and water into condenser unit. Observes boiling of liquor through sight glasses. Adjusts valves to maintain specified temperatures and pressures and obtain supersaturated solution without carmelizing sugar. Opens valve to shock solution with panseed (powdered sugar) and start formation of sugar crystals. Obtains samples of solution, using proofstick, and observes grain size under microscope to determine when crystals have grown to specified size. Opens pan-feed valve to control growth of crystals. Samples solution to ensure that sugar crystals remain at specified sizes as pan fills. Closes pan-feed valve when pan is filled and continues boiling until solution reaches specified concentration of sugar-crystals and massecuite. Turns valves to stop boiling and to break vacuum seal on pan. Turns valve to dump sugar into mixing tank or crystallizer. Washes and steams pan after dumping strike to remove sugar remaining on coils or calandria. Records strike on station log. May be designated according to type of liquor boiled as Soft-Sugar Boiler (sugar & conf.); White-Sugar Boiler (sugar & conf.); or according to stage in process as High-Raw-Sugar Boiler (sugar & conf.); Remelt-Sugar Boiler (sugar & conf.).
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

522.382-038 VINEGAR MAKER (food prep., nec)
Controls equipment to produce vinegar: Starts pumps and opens valves to charge generators and concentrators with specified volume of vinegar starter, water, alcohol, and coolant. Monitors air and temperature gauges and flowmeters and adjusts thermostats, valves, and dials to maintain prescribed generating and concentrating conditions for strength of vinegar being processed. Turns valves to regulate rate and volume of solution through filter tank and to transfer solution to storage or shipping tank. Tests vinegar samples for grain content (strength), using pH meter and hydrometer. Records test results and air temperature readings on process control cards.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

522.384-010 FISH ROE TECHNICIAN (can. & preserv.)
Sorts, grades, and packs egg skeins containing fish roe: Examines egg skeins (membrane-enclosed ovaries, tissue, and fish roe) for unacceptable conditions, such as immaturity, bruises, or blood saturation. Discards unacceptable skeins and places acceptable skeins in containers for weighing and to await further processing. Dissolves specified salts in water, following brining formula; tests specific gravity of solution, using hydrometer; and pours brining solution into agitation vat. Flips switches to start vat agitators, pours preweighed amount of egg skeins into vat, and turns knob on timer to set brining cycle. Feels skeins for firmness and texture to determine effect of brine on skeins. Removes processed skeins from vat, using wooden-handled seine, and places skeins in container to drain. Tests brine in vat, using hydrometer, and adds specified salts when required to maintain salinity of brining solution at specified level. Examines, grades, and separates processed egg skeins, according to factors such as color, length, and width, utilizing product experience. Selects boxes marked for prescribed grade of egg skeins, places plastic sheets across bottom of boxes as liner, and sprinkles salt over liners prior to packing skeins. Positions layers of skeins in boxes to ensure preservation and seasoning in boxes. Weighs boxes on scales after packing, and adds or removes skeins to obtain specified weight. Folds plastic liner over filled boxes, positions lids on boxes, and stacks packed boxes for storage during aging process.
GOE: 06.02.28 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 86

522.465-010 STEEP TENDER (grain-feed mills)
Tends steep tanks to soften corn and other grains preparatory to grinding: Opens hatch and chute gate leading to steep tank, and signals GRAIN RECEIVER (grain-feed mills) to load tank with grain. Turns valves and starts pumps to fill tank with steep-water to specified level. Observes thermometers

and opens steam valves to heat tank to specified temperature. Tests specific gravity of water in tanks, using hydrometer, to determine when steeping process is complete. Records data, such as number of batches and bushels steeped, length of steeping cycle, and temperature and specific gravity of each batch. May prepare grinding schedules to facilitate production. May operate sulfur burner to regulate sulfuric acid concentration in steep water, millhouse, and starch wash water. May work as member of team and be designated according to position as Bottom Steep Tender (grain-feed mills); Top Steep Tender (grain-feed mills).
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

522.482-010 MASHER (beverage)
Operates cooker and mashing tub to cook and combine cereal, such as corn or rice, and malt to produce wort: Opens slide gate on scale hopper to fill cooker and tub with measured amounts of malt and cereal. Starts pumps and turns valves to admit hot water into cooker and tub. Starts power-rakes that mix cereal and water in cooker, and malt and water in tub. Ignites burners to cook cereal and mash over controlled cooking cycle. Turns outlet valve on cooker and starts pump that transfers cereal mash to tub. Turns valve that admits steam into tub to heat mash to specified temperature. Starts power-rake that mixes mash. Adds iodine to sample of mash and examines color to determine degree of saccharization. Turns outlet valve to transfer cooked mash to filter press or lautertub. Washes mashing tub and cooker, using high-pressure water hoses and cleaning solutions. Records mash temperature, steam pressure, and degree of saccharization.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

522.485-010 PICKLING SOLUTION MAKER (meat products)
Tends machine that mixes pickling solution for use in curing meats: Weighs specified amount of dry ingredients, such as phosphate and nitrate, on scale, according to written specifications. Turns valve to fill vat of mixing machine with water, and dumps dry ingredients into vat. Presses button to activate machine agitator that mixes ingredients and turns valve to admit brine solution into vat. Tests mixed solution for saline content, using salinometer, and turns valve to stop flow of brine solution into vat when specified saline content is obtained. Turns drain valve or presses pump button to drain or pump mixed pickling solution from vat into storage tank for use in curing process. May turn steam valve to heat solution to specified temperature. May weigh specified amounts of ingredients to prepare dry-cure mix and mix ingredients, using ladle or electric mixer. May observe meat color to determine degree of cure.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

522.584-010 OLIVE BRINE TESTER (can. & preserv.) alternate titles: storage brine worker; storage laborer
Tests brine in olive barrels, maintains salinity of specified level, and inspects olives for evidence of spoilage: Knocks bung from barrel, using mallet. Siphons sample of solution from cask and reads indicator level, using hydrometer, to measure solution salinity. Replaces solution or adds water or salt to maintain brine salinity at specified level. Feels, smells, and visually examines olives to detect spoilage, wrinkling, and discoloration. Reseals barrel with bung, using mallet. May add vinegar or lactic acid to solution to retard spoilage.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

522.585-014 GERMINATION WORKER (beverage)
Tends equipment that controls temperature and humidity in rotating drums or compartments in which barley is germinated to produce malt: Starts fans that force and circulate moist, heated air into drums or compartments. Moves damper counterweights or lowers handle to adjust and obtain specified temperature and humidity. Adds water to drum, using metered hose, or starts screw-type mixing machine equipped with water sprayer to ensure uniformity of germination. Removes sample of germinated barley from drum or compartment for laboratory analysis. Records such data concerned with malting cycle as air and water temperature and humidity content.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

522.587-010 CARBONATION TESTER (beverage)
Measures and records volume of carbon dioxide in storage tanks during carbonation of beer, and purity of carbon dioxide present in beer after fermentation: Connects test apparatus to tank test cocks on storage tanks during carbonation of beer. Reads electronic meter on test apparatus and records meter readings that indicate volume of carbon dioxide, or amount of carbonation, present in beer. Observes calibrated tube of testing instrument attached to tank test cocks after fermentation of beer, and records readings that indicate percentage of oxygen or purity in carbon dioxide content of beer.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

522.662-010 RECEIVER, FERMENTING CELLARS (beverage)
Operates pumps that add yeast to wort, following standard instructions: Turns spigot to drain yeast from pressurized yeast tub into yeast wagon, or starts pump to transfer yeast from storage tank to yeast brink (pressurized tank that pumps measured amounts of yeast to starting tank). Connects wort and starting tank lines. Signals PUMPER, BREWERY (beverage) or starts pump to transfer wort from storage to starting tanks. Mixes yeast and wort, using paddle and connects wagon and wort lines, or opens valve on brink tank to transfer yeast mixture or yeast to wort in starting tank. Observes flow dials and pressure gauges to ensure that specified ratio of yeast to wort is maintained. Opens starting tank valve to obtain sample for laboratory analysis. May pump pure yeast culture, prepared by YEAST-CULTURE DEVELOPER (beverage), from sterile barrels through successive yeast culture tanks to permit further cultivation of yeast prior to adding it to wort and be designated Culture-Room Worker (beverage).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

522.662-014 REDRYING-MACHINE OPERATOR (tobacco) alternate titles: tobacco drying-machine operator
Operates redrying machine to dry, cool, and moisten tobacco for packing o further processing: Starts flow of steam or hot air into drying units and stean and water in ordering section. Starts fan that circulates hot air in drying unit and conveyor that carries tobacco through drying unit, cooling section, and ordering section. Observes air pressure gauges, humidity and temperature charts or thermometer to determine whether specified amount of heat, steam, or ai pressure is maintained. Feels tobacco to determine moisture content and regulates flow of hot air, steam, and water to correct deviations from standard. May remove sample leaves of tobacco from machine for moisture content measurement.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

522.665-010 FILTER TENDER (grain-feed mills)
Tends rotary vacuum and drum or leaf pressure filters that purify liquid sugars: Turns valves to control flow of materials through filters during semiautomatic or manual operation of equipment, as instructed. Observes liquid suga flowing through filters to detect cloudiness and turns valves to regulate flow recirculate filtrate, or bypass filter for cleaning. Moves levers to raise filter covers and cleans filter, using hot water hose.
GOE: 06.04.15 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

522.665-014 YEAST PUSHER (beverage)
Tends equipment to transfer surplus yeast from fermenting cellar to storag tanks in yeast drying plant: Couples hose between yeast tank and flow line using wrench. Opens valves on line to effect uninterrupted flow. Notifies yea plant to prepare to receive yeast. Opens gravity-feed outlet valve to perm yeast to drop into storage tanks. Climbs into tank to spray yeast residue wit water and pushes it to outlet to complete transfer, using water hose and paddle
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

522.667-010 LIQUOR INSPECTOR (beverage) alternate titles: conten checker
Examines filled bottles of distilled liquor to detect imperfections or brea in glass or foreign particles within bottle: Removes bottle from conveyor lin places it in front of strong light, and examines it to detect imperfections glass or foreign particles within bottle. Informs CONTAINER WASHER, MACHINE (any industry) to stop machine when foreign particles are detected within bottles. May be designated according to type of liquor inspected as Gin Inspector (beverage); Whiskey Inspector (beverage).
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

522.682-010 KETTLE OPERATOR (beverage)
Controls equipment to cook grain mash and boil resulting liquor (wort) wi hops to flavor it preparatory to fermentation, following written or oral specifications: Mixes and cooks specified amounts of malt, corn, and rice in wate maintaining temperatures for designated periods of time. Turns valves to transfer mash to lautertub to strain and extract wort, and to control flow of wo from lautertub to brew kettle. Adds specified amounts of hops to wort in bre kettle and cooks mixture [KETTLE TENDER (beverage)]. Drains wort throug hop-extractor into hot-wort tank and starts pump to transfer wort to cooler. Ma add hop extract to mixture in brew kettle.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

522.682-014 ORDERING-MACHINE OPERATOR (tobacco) alternate titles: conditioning-machine operator; ordering-box operato steam-box tender; steamer
Operates *ordering machine* to moisten tobacco preparatory to processin Starts machine and conveyor and turns valve to start flow of steam into chamber. Observes gauge to determine whether specified amount of steam pressu is maintained. Feels tobacco leaves to determine moisture content and regulat flow of steam, hot air, or water so that tobacco will be pliable and easily processed. Observes flow of tobacco from machine onto conveyor or into tubs boxes. Regulates speed of conveyor. May feed tobacco onto conveyor of ordering machine.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

522.684-010 PICKLER (can. & preserv.) alternate titles: pickle make pickle processor
Pickles prepared food products in preservative or flavoring solutions: Mi ingredients, such as salt, vinegar, or sugar in barrels, vats, or tanks, accordi to formula, to make pickling or flavoring brine. Dumps product, such as vegetables, fruit, fish, fish eggs, or meat into solution to soak for specified time. M pack product into barrels in layers, covering each layer with preservati compound. May remove contents from containers by hand or with dip net. M be designated according to product pickled as Fish Pickler (can. & preserv Gherkin Pickler (can. & preserv.); Pepper Pickler (can. & preserv.); Swe Pickled-Fruit Maker (can. & preserv.); Sweet-Pickle Maker (can. & preserv.).
GOE: 06.04.28 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 78

522.685-010 BLENDING-MACHINE OPERATOR (dairy products)
Tends machine that rinses and dries cottage cheese and blends it with crea to produce cream-style cottage cheese: Inserts plastic liner in tub, sprays li

interior with sterilizing fluid, and slides tub under machine discharge outlet. Signals COTTAGE-CHEESE MAKER (dairy products) to pump cottage cheese to machine. Presses switches and turns water valve to start machine that spreads cottage cheese into even layer, sprays cheese with refrigerated water to cool and rinse it, and squeezes cheese dry under pressure belt. Feels dried cheese to determine if specified amount of water is removed, and adjusts pressure belt, as required, using wrenches. Starts pump and turns valve to control flow of cream from refrigerated tank to auger that blends cream with cottage cheese. Observes texture of creamed cottage cheese and adjusts valve to maintain cream content at specified level. Tastes cottage cheese and reports off-flavors to management. Stops machine and closes filled tub. Blends cream and salt according to formula, using mixer, and pumps cream to refrigerated tank.
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

522.685-014 BREWERY CELLAR WORKER (beverage)
Tends equipment that cools and adds yeast to wort to produce beer: Starts pumps and turns valves to control flow of refrigerant through cooler coils, to regulate flow of hot wort from tank through cooler into starting tank, and to admit specified amounts of air into wort [COOLING-MACHINE OPERATOR (beverage)]. Turns valves to add yeast to wort and to transfer wort to fermenting tanks [RECEIVER, FERMENTING CELLARS (beverage)].
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

522.685-018 BRINE MAKER I (can. & preserv.) alternate titles: pickling-solution maker
Tends steam cooker to prepare brines and pickling solutions used for preserving food products: Opens valve to admit required amount of water into steam cooker, observing water gauge or designated mark on cooker. Pours salt or other ingredients, such as vinegar, alum, tumeric, sugar, and flavoring, into water, using measuring container. Mixes ingredients in kettle, using paddle. Admits steam into jacket of cooker and allows solution to boil for specified length of time. Observes temperature gauge and regulates heat to maintain boiling temperature. Tests solution for salt and other preserving content, using salinometer or hydrometer. Adds water, salt, or other ingredients until prescribed specific gravity is attained. Pumps solution to brine vat or holding tank for aging and curing.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-022 BRINE MAKER II (can. & preserv.)
Tends equipment that mixes brine solution of specified sulfur-dioxide concentration in vat to bleach and preserve cherries prior to processing them into maraschino cherries: Turns valve and observes volume indicators to fill vat with specified volume of water. Screws hose coupling on outlet valve of sulfur-dioxide gas container, using wrench, and lowers other end of hose into water. Reads chart and gauges and opens valve to admit specified amount of gas into vat to obtain solution of specified concentration. Draws sample of brine solution from vat and tests it for volumetric concentration, using test equipment and reagents, such as starch and iodine. May add lime, according to formula, and in proportion to volume of brine and ripeness of cherries to provide firming agent. Mixes lime in solution, using paddle. May pump brine from vat into plastic-lined bins filled with cherries.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 77

522.685-026 CARBONATION EQUIPMENT TENDER (beverage)
Tends equipment to regulate flow of carbon dioxide into beer lines and tanks to carbonate beer: Observes volume meters and pressure gauges and turns valves to admit specified amounts of carbon dioxide at specified pressures into tanks and lines. Observes beer through sight glasses and adjusts flow and pressure of carbon dioxide to control turbulence.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

522.685-030 CASING-MACHINE OPERATOR (tobacco) alternate titles: flavoring-machine operator; overshot operator; tobacco flavorer
Tends machine that applies flavoring or *casing fluid* to chewing or smoking tobacco, by either of following methods: (1) Starts machine, pours fluid into trough of machine. Forks or shovels tobacco into hopper or onto conveyor that carries tobacco through revolving drum immersed in fluid or under spraying device. (2) Turns valves and starts pumps to transfer fluid from storage tank to spray tank and to spray fluid on tobacco passing under sprayer on conveyor or fed into revolving drum. Opens valve to admit steam to jacket of spray tank to heat fluid to specified temperature. May remove excess fluid from tobacco [WRINGER OPERATOR (tobacco) 522.685-106]. May tend grinders that grind menthol crystals and add menthol to casing fluid.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-034 CORN COOKER (food prep., nec)
Tends equipment that cooks corn in steam cooking vat or kettle to soften corn preparatory to grinding into products, such as masa (cornmeal dough), for use in making corn chips and tortillas: Dumps prescribed quantities of ingredients, such as shelled corn, water, and lime, into cooking vat, and sets controls to admit steam into jacket of vat. Adjusts cooking temperature and starts equipment that automatically cooks and stirs ingredients. Drains corn into tank of water, after specified cooking time, for cooling and soaking preparatory to hulling and grinding by CORN GRINDER (food prep., nec).
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

522.685-038 CURING-BIN OPERATOR (grain-feed mills)
Tends moistening drums of curing bins that spread moisture uniformly through cooked grain prior to or after being shaped into breakfast cereal, such as flakes or shredded biscuits: Opens gate in conveyor duct to deflect incoming grain into first bin. Closes gate when bin is full, records time, and repeats filling operation with next bin. Pulls lever to dump grain onto conveyor as specified curing time is completed for each bin. Dislodges remaining grain from bin, using pole. May tend bins and cooling towers that cool toasted grain to specified temperature for packaging by starting fan and turning water valves as grain moves through equipment and moving lever to direct grain into chutes of filling machines.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-042 DE-ALCOHOLIZER (beverage)
Tends distilling equipment that removes alcohol from beer to convert it to near-beer: Turns valves to admit water to condensers. Starts impellers and vacuum pumps, and opens beer inlet valve. Observes meters, and steam-pressure and vacuum gauges, and turns valves to make adjustments required to draw off vaporized and condensed alcohol and return other gases to solution. Starts pump to transfer solution (near-beer) to storage tank or rack room. Inspects hoses, pipes, tanks, and connections for leaks and cleans equipment by flushing with water.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-046 DEODORIZER (chemical)
Tends distilling equipment and filter presses that deodorize processed oils used in manufacture of margarine, shortening, and other edible products: Turns valves to admit steam to heat oils to specified temperature. Pours or dumps specified chemicals into hopper, using standard measuring container. Maintains specified pressure and vacuum to remove fatty acids and gases from oil.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-050 DORR OPERATOR (sugar & conf.)
Tends processing equipment that separates organic colloidal matter from carbonated raw sugar beet liquor, and purifies liquor prior to refining into granulated sugar: Opens valves and starts pump to fill settling tank with liquor and adds specified amounts of lime or milk of lime solution. Sets controls to maintain specified temperature of lime-liquor solution to aid in precipitation process. Takes sample of liquor from tank and tests for purity, using refractometer. Opens valves and pumps liquor to process storage tanks and lime sludge to filter station. Washes remaining sludge from bottom of settling tank. Records data, such as amount of liquor processed and refractometer readings on batches, in station log.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-054 DROPPER, FERMENTING CELLAR (beverage)
Tends pumps to transfer pitched wort from starter tank to fermenting tank: Observes yeast in *pitched wort* to verify yeast development and collects samples of beer in early fermentation stages for laboratory analysis. Skims brown yeast from beer surface, using paddle. Fastens and clamps hose terminals to connect lines from starter to fermenting tank, using wrenches. Turns valves to open line to transfer pitched wort by gravity feed into fermenting tank. Pumps caustic soda solutions through transfer lines to clean interior.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

522.685-058 DRUM LOADER AND UNLOADER (beverage)
Tends revolving drums in which barley is germinated under controlled temperature and humidity to produce malt: Couples drum spout to steeping tanks or to base of screw conveyors containing steeped barley. Turns valve or pulls lever to drop barley into drum or starts conveyor that empties barley into drum. Starts rotation of drum that mixes barley to promote uniformity of growth and temperature. Stops drum, following oral instructions. Unlocks and opens slide door, and starts drum rotating to dump barley onto conveyor. Crawls into drum and scrapes walls, using metal hook to remove barley. Washes drum with water, using high-pressure hose. May stand in pit under revolving drum and pull barley from drum, using metal hook.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

522.685-062 FERMENTER, WINE (beverage)
Tends tanks that convert (ferment) crushed fruit or must into wines by either of following methods: (1) Dumps or shovels specified amounts of crushed fruits into wine tanks and starts pump to admit premeasured amounts of syrup. Turns valve to admit compressed air into tank and allows mash to ferment for specified period of time. (2) Pours and dumps specified amount of chemicals and yeast into tank containing must to prevent bacteria growth and induce fermentation. Starts pump to circulate must to enrich color and flavor of wine. Starts pump to circulate must through heat exchanger as required to prolong fermentation, according to temperature readings. Turns valve to admit compressed air into must when producing sparkling burgundy and champagne. Starts pump to transfer fermented mash or wine into storage tanks. May pump fermented wine through filter equipment to remove sediment. May meter out specified amounts of sugar and water into automatic mixing tank to produce syrup. May be designated according to type of wine produced as Fermenter, Champagne (beverage).
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

522.685-066 FISH SMOKER (can. & preserv.)
Tends smoke chamber in which fish are cured: Removes salt-cured fish from barrels and hangs fish on racks. Places racks of fish in washing tank, and turns valve to regulate fresh water flow. Lifts racks of fish from tanks and places racks in smoke chamber. Fills hopper of chamber with wood chips and turns

on burner. Turns wheel to regulate amount of smoke entering chamber. Examines color and texture of fish to ensure that curing has proceeded according to specifications. Removes and stacks cured fish on trays for packaging.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

522.685-070 HONEY PROCESSOR (food prep., nec) alternate titles: pasteurizer

Tends equipment that pasteurizes and filters liquid honey, and seeds honey with crystals to make crystallized honey for use as food spread: Turns valve to admit honey from blending tanks to pasteurizer, and to adjust and control pasteurizing temperature. Installs pads in filter press and turns handcrank to tighten pads. Starts pumps and adjusts pressure to force honey through filter and transfer honey to bottling machine or cooling vats. Pours container of honey crystals into vat of liquid honey and mixes it with paddle or electric stirring rod to induce controlled crystallization. May bottle honey.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

522.685-074 MALT-HOUSE OPERATOR (beverage)

Tends equipment to germinate barley to make malt: Fills tank with water, weighs barley conveyed into beam scale hopper, and drops barley into tank to steep for predetermined period. Starts conveyors to load rotating drums or compartments with steeped barley. Regulates temperature and humidity in closed drums or open compartments to achieve maximum germination of barley. Moves discharge chute to spread germinated barley evenly over kiln floor for drying. Starts furnaces to heat kilns to specified temperature to dry malt (germinated barley). Starts conveyors to move dried malt successively through cleaning, separating, and grading machines.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-078 MOLASSES PREPARER (food prep., nec) alternate titles: mash-floor operator

Tends equipment to process molasses wort for use in production of baker's yeast: Turns valve to admit molasses into weigh tank. Observes scale and pumps measured molasses into heating tank. Adds specified amounts of water and chemicals to molasses to precipitate impurities. Starts mixing unit and opens valves to allow steam to circulate in coils of tank to heat molasses to specified temperature. Mixes diatomaceous earth with water and pours specified amount of mixture into tank to clarify molasses. Pumps filter solution through filter to precoat screens. Pumps molasses through filter to settling tank to remove impurities from molasses. Measures sludge level in settling tank, using depth gauge, and opens valve to decant molasses. Observes level indicators and pumps specified amount of cane molasses to mix with beet molasses in holding tank.
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

522.685-082 NEUTRALIZER (grain-feed mills)

Tends equipment that neutralizes acid in glucose (converted starch): Weighs prescribed amount of soda ash on scales and dissolves soda ash in water. Pours measured amount of *filtracell* into neutralizer tank. Turns valves to admit soda ash solution into tank to neutralize acid. Obtains sample from tank, and holds sample against light to detect formation of precipitate. Adds additional soda ash if precipitate is not readily forming. Adds acid to tank of starch to begin hydrolysis of starch into glucose.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

522.685-086 PICKLE PUMPER (meat products) alternate titles: injection-machine operator; pickle-water-pump operator; vein pumper

Tends machine that automatically injects meat with curing solution: Adjusts height of injection needles and width of conveyor guides, using wrenches. Turns valves to regulate flow and pressure of curing solution in pumping system. Starts machine and conveyor. Places meat on conveyor that pulls meat under machine injection needle which forces measured amount of curing solution into meat, and dumps treated piece into cart. Weighs meat before and after injection to ensure that specified amount of solution has been injected. May lift treated meat from conveyor, using handhook, and drop it into tank. May inject curing solution into meat, using hand pump, and be designated Pumper, Hand (meat products).
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-090 SEED-YEAST OPERATOR (food prep., nec) alternate titles: pure-culture operator; yeast-culture operator

Tends series of tanks to inoculate molasses wort with pure yeast culture to produce seed yeast for use in production of baker's yeast: Pours molasses wort and chemicals into tank, according to formula, and adds yeast culture from flask. Observes thermometer on tank and opens valves to allow water to circulate in coils of tank to maintain specified temperature. Pumps air into tank to aerate yeast. Tests specific gravity of yeast, using hydrometer, and tests acidity of yeast, using pH meter. Adds required chemicals to adjust acidity when necessary. Pumps wort to successive tanks as yeast growth progresses. Submits samples of wort to laboratory for analysis.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

522.685-094 STEAM-CONDITIONER OPERATOR (tobacco)

Tends equipment that injects steam into opened hogsheads of tobacco to order tobacco prior to further processing: Slips end of perforated metal tube over holder of hydraulic press, pushes hogshead under tube, and presses button to activate mechanism that pushes tube into center of tobacco. Presses button to release tube and raise press. Pulls hogshead from bed of press, throws canvas cover over top of hogshead, pushes hogshead into steam chamber, and connects flexible hose to end of tube protruding from top of hogshead. Presses buttons to lower door to seal chamber and to activate steam. Turns knobs to build up steam pressure and to activate air pressure that forces steam through air vents of tube into tobacco. Sets timer and observes light that signals when tobacco has been conditioned to specifications. Flips switch to activate exhaust mechanism that removes steam from chamber. Presses button to raise door. Pulls hogshead from chamber and removes tube from hogshead, using overhead chain hoist. Pushes hogshead to feeder conveyor.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

522.685-098 STILL OPERATOR (agriculture; can. & preserv.)

Tends batch stills and related equipment to separate and condense vitamins or oils from fruits or mint hay: Pumps or pours specified quantities of liquids into still. Observes thermostat and sets controls on instrument panel to maintain specified temperatures throughout distillation cycle and to control condensation. Draws samples of distillant for laboratory analysis. Observes color of distillant to determine when distillation is completed. Records operating data, such as weight, yield of product, gauge readings, and number of batches distilled.
GOE: 06.04.15 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

522.685-102 VACUUM-CONDITIONER OPERATOR (tobacco) alternate titles: steam-pressure-chamber operator

Tends vacuum conditioner (steam-pressure chamber) that moistens opened hogsheads of tobacco for further processing: Opens chamber door and pushes hogsheads of tobacco into chamber or starts hydraulic lift that moves hogsheads into chamber. Closes chamber door, starts vacuum pump, and turns valve to admit steam into chamber. Observes gauges and dials on control panel to determine when temperature and air, steam, and vacuum pressure reach specified levels to force steam through tobacco. Removes hogsheads from chamber.
GOE: 06.04.15 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

522.685-106 WRINGER OPERATOR (tobacco) alternate titles: casing-wringer operator; wrapper dipper

Tends machine that saturates tobacco leaves with *casing fluid* and removes excess fluid from leaves: Admits fluid to vat. Starts conveyor that feeds leaves through fluid and to wringer rolls of machine, or dumps leaves into vat, allows leaves to absorb moisture for specified time, and feeds moistened leaves between wringer rolls. Removes clogged leaves from rollers, using stick. Cleans rollers and vat, using steam and airhose.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

522.685-110 YEAST-FERMENTATION ATTENDANT (food prep., nec)

Tends fermentation tanks to propagate yeast in molasses wort: Opens valves to admit specified amounts of seed yeast and molasses wort into tanks. Dumps, pours, or meters measured quantities of nitrogen and phosphate to supplement diet of yeast. Pumps air into tank to aerate wort. Sets thermostat to maintain prescribed temperature levels in fermentation tanks. Tests wort for acidity, using pH meter, and adds specified chemicals to maintain required acidity. Adds additional wort and chemicals to tank, as yeast concentration increases, to facilitate yeast growth. Pumps wort with yeast cream (concentrated yeast suspension) to yeast-separating department.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

522.685-114 BARLEY STEEPER (beverage) alternate titles: steeper

Tends steeping tank that saturates barley with water preparatory to germination: Moves lever to open slide gate of weighing tank. Dumps barley into tank and weighs out specified amount. Turns handle to open and load barley into steeping tank. Turns water and air valves to fill steeping tank with water, remove chaff, and aerate barley. Reads and copies water and air temperature data to maintain record of steeping cycle. Drains and refills tank during cycle. Turns handles to open steeping tank and dumps steeped barley onto conveyor. May tend equipment to germinate barley [GERMINATION WORKER (beverage) 522.585-014].
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 78

522.686-010 CHIP WASHER (beverage)

Shovels beechwood chips (used to impart flavor to beer) from fermenting tank into cart. Pushes cart into automatic washer and starts washer. Removes cart from washer and shovels washed chips onto floor of fermenting tank.
GOE: 06.04.39 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

522.686-014 GENERAL HELPER (food prep., nec) alternate titles: fermenter helper; yeast stacker

Dumps chemical nutrients into yeast fermentation tanks to supplement diet of yeast cells. Takes samples of wort from tank for laboratory analysis. Cleans fermentation tanks, using steam and water. Transfers ingredients, materials, and finished products to production, storage, and shipping area, using handtrucks.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-010 BARREL FILLER I (beverage) alternate titles: checker

Fills metal or wooden containers with distilled liquors, preparatory to aging: Rolls metal drum or wooden barrel, with bunghole side up, under spigot attached to storage tank. Inserts spigot nozzle into bunghole of container and opens valve to fill container with whiskey, gin, or vodka. Removes spigot nozzle from filled container when spigot has shut off automatically. Hammers bung into bunghole of barrel or screws threaded metal bung into bunghole of metal drum, using wrench. Rolls filled container aside for storing. When filling metal drums only, may be known as Drum Filler (beverage).

GOE: 06.04.36 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-014 BRINER (can. & preserv.) alternate titles: dipper, fish

Immerses fresh fish fillets in brine solution to condition them for wrapping or freezing: Places fish fillets in wire basket and submerges basket in salt and water solution for specified time. Removes basket from brine tank and dumps fillets on conveyor belt.
GOE: 06.04.28 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-018 BULKER (tobacco)

Fills *bulking cell* with stemmed and cased tobacco: Directs conveyor tube into cell and spreads tobacco in cell, using handfork. Positions hydraulic press over tobacco and pulls lever to activate press to pack tobacco into bulk for fermentation.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-022 FILLER ROOM ATTENDANT (tobacco)

Spreads filler tobacco leaves on trays after conditioning (wetting) to allow air to circulate between leaves. Feels leaves to determine moisture content and empties trays into boxes or cans when leaves are at stage specified for processing. May fill cans with tobacco [CAN FILLER (tobacco)]. May moisten tobacco [LEAF CONDITIONER (tobacco)].
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-026 LEAF CONDITIONER (tobacco) alternate titles: casing wetter; tobacco conditioner; tobacco curer; tobacco dipper

Moistens (conditions or cases) hands of tobacco to make leaves pliable for processing: Removes hands from receiving box and dips them into water or sprays water over leaves. Stacks leaves, stem down, on drainboard and covers leaves with cloth or paper. May pack drained leaves in cases and transfer cases to steam or humidifier room, using handtruck. May mix various grades and types of tobacco prior to conditioning. May be designated according to type of tobacco as Binder Caser (tobacco); Wrapper Caser (tobacco). May feel tobacco leaves from steam room and moisten butts and tops of hands that are too dry and be designated Cigar-Tobacco Rehandler (tobacco).
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-030 LEAF-CONDITIONER HELPER (tobacco) alternate titles: caser helper

Assists LEAF CONDITIONER (tobacco) to condition tobacco leaves. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-034 PICKLER (meat products) alternate titles: curing packer; green-meat packer; vat overhauler; vat packer

Loads cuts of meat into pickling vats or barrels to cure meat preparatory to smoking: Packs and arranges meat in vats or barrels by hand or with meat hook to ensure maximum saturation. Turns valves to admit curing solution into vats or pours in solution by hand. Covers vat or barrel to keep meat protected and submerged in solution. Sticks trier (hook) into meat and smells trier to determine degree of curing. Opens valves or pulls bungs to drain vats and barrels, and removes cured meat for further processing. Dumps frozen meat in water tank to defrost it preparatory to curing. May roll barrels to rearrange meat and ensure maximum saturation. May flush or blow marrow from ham bones. May clean vats with water and steam hoses.
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

522.687-038 TURNER (can. & preserv.) alternate titles: box turner

Rearranges containers of fruit stacked in tiers in ripening room to expose all fruit equally to room temperature during ripening period. May truck fruit in and out of ripening room.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

522.687-042 WRAPPER-HANDS SPRAYER (tobacco) alternate titles: tobacco sprayer

Moistens hands of tobacco wrapper leaves with water, using spraygun, to make leaves pliable for processing. Feels leaves to determine whether moisture content is within prescribed limits. Weighs specific amounts of leaves and places leaves in containers for untier. Records amounts of wrapper and binder leaves used in making cigars.
GOE: 06.04.28 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

522.687-046 FISH ROE PROCESSOR (can. & preserv.)

Performs any combination of following tasks concerned with cannery processing of fish roe: Presses headless fish against work surface to ascertain sex of fish by presence or absence of milt. Inserts hand into body cavity of female fish, feels along ventral area of body to locate vent, and cups hand to remove viscera and egg skeins (membrane-enclosed ovaries, tissue, and fish roe). Separates viscera and organs from egg skeins by hand. Discards viscera and organs and places egg skeins in baskets for weighing. Weighs baskets containing egg skeins, using scales, and records totals on tally sheets. Dumps basket of egg skeins on work surface, and examines egg skeins for imperfections, such as blood saturation, immature eggs, and torn membranes. Separates egg skeins, according to size and species of fish. Places acceptable egg skeins in containers for reweighing. Rinses containers of egg skeins with water, using water hose, and dips containers in mild saline solution to rinse egg skeins prior to brining. Works under direction of FISH ROE TECHNICIAN (can. & preserv.) 522.384-010 to fill brining tanks, dump egg skeins into tanks, remove processed egg skeins, and pack egg skeins for shipment, following prescribed procedures. May slit underside of fish before removing egg skeins, using knife.
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

523 HEATING, RENDERING, MELTING, DRYING, COOLING, FREEZING, AND RELATED OCCUPATIONS

This group includes occupations concerned with subjecting materials or products to heat and cold for a specific purpose, such as removing moisture or fat content, or preserving and storing them by refrigeration.

523.131-010 TESTING AND ANALYSIS DEPARTMENT SUPERVISOR (can. & preserv.)

Supervises and coordinates activities of workers engaged in sorting and packing nuts, and inspects sampling of nuts to estimate percentage that will be marketable from each delivery: Selects random sample of nuts from each delivery, places sample in containers, and attaches identification tag to container. Places nuts in drier to remove specified percentage of moisture. Weighs nuts before and after drying and records weight lost. Places nuts on perforated plate through which nuts pass into separate containers, according to size. Cracks nuts and examines them for blanks, worms, and shriveled centers. Segregates salable nuts, weighs nuts, and records percentage of marketable products. May explain procedures for estimating percentage of marketable products to growers. Performs other duties as describeed under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

523.132-010 SUPERVISOR, CHAR HOUSE (sugar & conf.)

Supervises and coordinates activities of workers engaged in regenerating bone-char, charcoal, and diatomaceous earth used as filtering media for sugar liquor: Orders emptying of filters, and transferring of char between char-house by CHAR PULLER (grain-feed mills; sugar & conf.) and other workers. Directs kiln operator in maintaining specified temperature in kiln and flow-rate of material through kiln. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

523.137-010 SUPERVISOR, ICE HOUSE (food prep., nec)

Supervises and coordinates activities of workers engaged in filling cans, sucking cores, and pulling and dumping cans in ice plant. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

523.362-010 COCOA-BEAN ROASTER I (sugar & conf.)

Operates one or more roasters to remove moisture and impart specified color and flavor to cocoa beans: Adjusts thermostat and fuel valve to heat roasters to specified temperature. Observes temperature chart to ascertain heat pattern of roaster. Pulls handle to open hopper and drop beans into roaster. Starts roaster cylinder rotating to roast beans evenly. Examines sample of beans for color, dryness, or brittleness after specified roasting cycle, and tastes bean to judge if flavor conforms to standard. Adjusts roaster flame and dampers to control circulation of hot air on basis of evaluation of sample. Pulls handle when desired degree of roasting is reached to discharge beans onto conveyor that transfers beans to cracking and fanning machine. Records amounts of beans roasted. May tend bean-cleaning machine.
GOE: 06.02.15 STRENGTH: L GED: R3 M1 L1 SVP: 7 DLU: 77

523.362-014 DRIER OPERATOR (food prep., nec)

Controls equipment that dries macaroni according to laboratory specifications: Turns dials and opens steam valves on panelboard to regulate temperature, humidity, and drying time in preliminary, secondary, and final drying chambers, according to outside atmospheric conditions, specific product requirements, and drying stage. Enters chambers and feels macaroni to determine if product is drying according to specifications, relying upon knowledge and experience. Opens chamber hatch to admit cold air and adjusts controls to change drying speed at particular drying stages to comply with laboratory recommendation or to meet changing atmospheric conditions. Regulates temperature and humidity in press room to maintain required atmospheric conditions. Evaluates quality of dried macaroni on basis of color.
GOE: 06.02.15 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

523.380-010 COCOA-BEAN ROASTER II (sugar & conf.)

Sets up and operates such equipment as continuous roaster, cracker and fanner, dryer, and grinder, to process cocoa beans to make chocolate liquor: Turns gas valves and electric switches to start and heat roaster. Sets thermostat and rheostat to control temperature of roaster and speed of rotation. Starts conveyor to transfer specified type and amount of beans from storage to roaster. Examines sample of beans for color, tastes beans for flavor, and crumbles beans to determine moisture content. Adjusts temperature and speed of roaster in accordance with findings. Starts cracking and fanning machine to break and remove husks from roasted cocoa beans [CRACKING-AND-FANNING-MACHINE OPERATOR (sugar & conf.)]. Observes nibs (cracked roasted cocoa beans) and shells to evaluate husking process, and adjusts machine accordingly. Opens slide gate on fanner to convey nibs scheduled for dutch processing [DRIER OPERATOR (sugar & conf.)]. Starts agitator to mix beans in treating tank for specified time. Opens tank gate to release beans for conveying to dryer. Starts gas-fired dryer, sets rheostat, and feels beans for dryness. Starts conveyor to move dried beans to roaster for roasting or to grinding machine

[LIQUOR-GRINDING-MILL OPERATOR (sugar & conf.)]. Turns valve to pump chocolate liquor to storage tanks. Patrols area to observe coordination of machine and equipment to ensure orderly flow of material at specified rates.
GOE: 06.01.03 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

523.382-010 GUNNER (grain-feed mills) alternate titles: cereal popper; shooter
Controls guns (pressure cylinders) to expand or puff whole grain to produce breakfast cereal: Presses button to admit grain and water to electric- or gas-heated cylinder. Clamps lid in place and starts cylinder rotating. Turns valves and moves controls to regulate air pressure and temperature in cylinder to obtain product having puffed kernels of specified size, color, and uniformity. Removes lid after specified time, causing grain to expand as it escapes from cylinder. Examines and feels product to determine need for adjustments in process conditions.
GOE: 06.02.15 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

523.382-014 MAPLE-SYRUP MAKER (food prep., nec)
Controls equipment to produce maple syrup: Transfers maple sap to evaporator pan placed on stove, allowing product to flow through various compartments of evaporator. Pours additional sap into evaporator as needed to maintain uniform temperature. Transfers syrup to heated finishing pan when level of product in evaporator indicates evaporation is complete. Tests syrup for prescribed consistency by adding quantity of syrup to cold water and observing appearance. Filters evaporated syrup through cloths or other filtration media. Pours syrup into containers or molds for storage, use, or sale. May boil, stir, and evaporate syrup to form variety of maple products, such as maple sugar, wax, butter, or candy, depending on processing temperature and time, and be designated Maple-Products Maker (food prep., nec).
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

523.382-018 MELTER OPERATOR (sugar & conf.)
Operates heating and mixing equipment (melters) that reclaims uncrystallized sugar from molasses and softens molasses adhering to sugar crystals: Starts pumps, turns valves to start flow of molasses, and starts conveyor that dumps sugar crystals into melting tanks. Turns steam valves to maintain specified temperature, and starts agitators. Observes dials on panelboard and adjusts controls to maintain specified temperature, steam pressure, and density of mixture. Tests mixture for alkalinity, using pH meter, and posts data, such as test results, temperature, and density of mixture on report form. May mix and store milk of lime solution. May add milk of lime to mixture to obtain specified alkalinity. May pump liquors to char house for filtration. May clean pump screens, using hose and water.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

523.382-022 PROCESSOR, INSTANT POTATO (food prep., nec)
Controls equipment to process potatoes into instant potato granules: Reads laboratory reports to stay apprised of laboratory test results of potato samples taken during processing. Observes lights, gauges, and meters on panelboard controls to determine temperature readings of equipment, such as precookers, precoolers, cookers, and driers. Turns dials on panelboard to maintain operating temperature ranges as required to meet company standards. Flips switches and presses buttons on panelboard to start potato processing equipment, such as feed screws, mixers, cookers, and granule driers. Walks through processing areas and observes product consistency and product level in equipment, such as feed screws and cookers. Turns equipment controls on panelboard to adjust temperatures of cookers or airflow through driers, utilizing knowledge of product processing. Listens for alarms that indicate malfunctions of processing units and takes required steps, such as shutting down equipment and notifying supervisor. Records shift activities in log.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 86

523.385-010 PRESSURE-TANK OPERATOR (chemical)
Tends steam pressure tanks to extract glue from bones: Opens valve to admit steam into tank of bones, and observing gauges, adjusts pressure according to specifications. Shuts off steam and releases pressure after required period, and drains glue liquor into storage tank. Measures density and temperature of liquor, and records hydrometer and thermometer readings on control sheet. Weighs out specified amount of zinc sulfate preservative and adds it to glue in storage tank.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

523.562-010 DIFFUSER OPERATOR (sugar & conf.)
Operates automatic multicell diffuser to extract sugar juice from beet slices: Starts diffuser and auxiliary equipment, such as beet slicers, conveyors, and automatic weighing scales. Observes dials and turns controls to regulate flow of beets and water into diffuser, speed of agitators, and temperature of liquid in cells. Reads laboratory report to determine sugar content of beets, and adjusts controls to obtain maximum amount of sugar juice. Examines diffuser cells to determine if screens are clear, and that liquid levels are maintained at specified height. Reads control panel dials and automatic indicators, and records operating data, such as tonnage of beets sliced and diffused, and tonnage of water required to diffuse beet slices.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

523.585-010 BUTTER LIQUEFIER (oils & grease) alternate titles: butter melter
Tends equipment that melts and pasteurizes butter for use in fortifying and flavoring margarine: Opens valves to admit steam to heat chambers of liquefier and pasteurizer to prescribed temperatures. Places butter blocks on revo table and starts liquefier to melt and deposit liquified butter into receiving Pumps melted butter through pasteurizer and preset cooling unit into ho tank. Weighs and adds prescribed ingredients to complete batch. Disma piping, using handtools. Flushes lines, and cleans tanks and equipment, solvents and water. Maintains operating log and temperature charts.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

523.585-014 CHILLER TENDER (meat products)
Tends immersion vats and cooling equipment that chill dressed chicke prevent spoilage: Starts water pumps, agitators, ice feeders, and conveyor turns valves to control rate of flow and temperature of water circulating th chilling vats. Observes flow of ice through troughs that feed conveyor and lodges caked ice with mallet. Reads gauges and thermometers to verify peratures in chilling vats and cooler. Activates mechanical rakes to reg flow of ice from storage bins to vats. Records temperatures on report form
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.585-018 CRYSTALLIZER OPERATOR (sugar & conf.)
Tends crystallizers that agitate mixture of crystallized sugar and masse (molasses) while it cools to prevent solidification and to allow sugar cr to grow: Opens valves on signal from SUGAR BOILER (sugar & conf.) to mit strike to flow into mixing tanks. Starts agitators to prevent sugar cr and massecuite from separating. Turns valves to maintain level, temper and consistency of sugar mass in crystallizers. Steams out empty crystal to remove and recover hard sugar adhering to agitators, tank sides, and p Maintains records, such as equipment power and temperature readings and position of sugar strikes.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.585-022 DRIER, LONG GOODS (food prep., nec) alternate long-goods drier
Tends battery of preset, final drying chambers that automatically dry roni long goods: Pushes rack of macaroni into drying chambers and starts ing cycle. Observes hydrometer on chamber and removes rack of dried roni after completion of drying cycle. Records date and time of drying pr on tag and fastens tag to rack. Pushes rack to storage area.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

523.585-026 PASTEURIZER (oils & grease)
Tends equipment that pasteurizes, incubates, and blends sweet or sour for use in manufacture of margarine: Opens valve to pump prescribed an of water into tank and adds preweighed powdered milk or opens valve to fresh milk or reconstituted powdered milk into tank. Starts agitator. steam valve to heat batch to designated temperature for specified peri time. Admits water into cooling system to reduce heat of batch to storage perature. Adds specified culture of mixture to produce batch of sour Pumps sweet and sour milk mixture into mixing tank preparatory to chur Records number of batches produced. May clean and sterilize tank and a iary equipment, using steel wool, detergent, and caustic soda solution.
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 2 DLU: 77

523.585-030 PULP-DRIER FIRER (sugar & conf.)
Tends drum-type rotary driers and heating kilns, from central control st to remove moisture from beet pulp and molasses mixture being processed cattle fodder: Moves controls to admit fuel and air into kiln and ignite fi kiln. Adjusts controls to obtain specified temperature in drier drum. scrolls, elevators, and belt conveyors. Observes panelboard gauges and matic recorder readings and moves controls to regulate drier temperature rotation speed of drier drum according to moisture content of pulp-mol mixture. Feels processed pulp to ensure that drying process meets spec tions. Takes readings from conveyor scale to ascertain tonnage of fodder duced. Records production and operating data in station log. Collects san of cattle fodder produced for laboratory analysis.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.585-034 ROASTER, GRAIN (grain-feed mills)
Tends equipment that roasts whole or milled grain to specified color or ness preparatory to processing into cereal: Lights gas jets under drum or and sets temperature regulator at specified setting. Moves controls to tra grain to drum or pan and start agitator that prevents sticking of grain to of vessel. Shovels grain from outer edge of pan to center to ensure uni agitation of batch. Pushes grain from pan, using scoop, or pulls lever to d grain onto conveyor after specified time, or determines removal time by m ing color of roasted grain with color of standard sample. Records tempera reading and roasting time of batch. May start conveyor to move roasted to cooling pan and agitate grain with rake as blower forces air through forated bottom of pan.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

523.587-010 DRIER, SHORT GOODS (food prep., nec)
Observes meters and gauges to ensure that drying process of macaroni goods proceeds as scheduled: Patrols drying room and reads instruments charts that control and record automatic drying process in preliminary, sec ary, and final drying chambers. Reports deviations from specified trackings. Fills hydrometer wells with water. Dumps specified quantities o tamins into press hopper, and reads meter to ensure required vitamin feed Prepares report of drying operations and number of vitamin hoppers filled. relieve PRESS TENDER (food prep., nec).

GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.587-014 DRYING-ROOM ATTENDANT (tobacco)
Loads stripped or unstripped tobacco on racks in drying room and remoistens tobacco to increase pliability for use in making cigars: Places trays of tobacco on racks and removes them after specified time. Sprays leaves with water, using hose, and stacks trays. Places moistened leaves in containers for cigar making after specified time. Weighs and records weight of tobacco processed.
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

523.662-010 BONE-CHAR KILN OPERATOR (grain-feed mills) alternate titles: head kiln operator
Controls kilns to reclaim char (activated carbon) used in filtering corn syrups: Turns valve to admit gas to kilns. Specifies to BONE-CHAR KILN TENDER (chemical) temperature to maintain in kiln. Reads pyrometers to verify temperature. Observes operation of char conveyors to prevent spillage. Collects and replaces temperature-recording graphs. Patches flues, plugs up retorts, and replaces broken or worn parts in kiln.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

523.665-010 SUGAR DRIER (grain-feed mills)
Tends steam-heated rotary drier that dehydrates sugar products: Starts drier revolving and adjusts gates on ducts to prevent overloading and incomplete drying. Observes flow of materials through elevators and conveyors to prevent jamming or spillage. Signals CRYSTALLIZER OPERATOR (grain-feed mills) and CENTRIFUGAL OPERATOR (grain-feed mills; sugar & conf.) in synchronizing flow of materials to rate of intake at drier. Dumps sugar dust from collector into melting tanks and adds water to reclaim sugar lost during process. Cleans equipment with steam, hot water, and hose.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

523.666-010 COCOA-BEAN-ROASTER HELPER (sugar & conf.) alternate titles: roaster helper
Assists COCOA-BEAN ROASTER (sugar & conf.) I and COCOA-BEAN ROASTER (sugar & conf.) II to process cocoa beans preparatory to making cocoa, chocolate, or other cocoa products: Receives signal to charge and discharge cocoa beans from roasting ovens. Observes thermometers and clock and notifies supervisor of deviations from specific temperature or roasting cycle. Starts conveyors to move cocoa bean shells from cracker and fanner to shell cleaning machines or to transfer cleaned nibs (cracked roasted cocoa beans) to treating drums. Examines shells for presence of nibs and dumps shells into cracker and fanner machine to recover nibs. May tend cleaning machine [COCOA-BEAN CLEANER (sugar & conf.)]. May mix potassium solution used in processing cocoa beans to make dutch process chocolate. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

523.682-010 CHOCOLATE TEMPERER (sugar & conf.) alternate titles: tempering-machine operator
Controls water-jacketed kettles or automatic equipment that tempers chocolate preparatory to molding or coating operations: Starts pumps to transfer specified quantity of chocolate from storage tanks or dumps block chocolate into tempering kettles. Observes thermometer and turns valves to admit water or steam into jacket of kettle and to alternately heat and cool chocolate, according to temperature time chart specifications. Starts agitators and scrapers to mix chocolate in tank. Tests viscosity of chocolate with viscosimeter, and adds cocoa butter and lecithin as required. Pumps chocolate from tempering kettle through water-cooled column when using automatic tempering equipment. Sets thermometer dial to regulate temperature of chocolate to achieve specified temper.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

523.682-014 COFFEE ROASTER (food prep., nec)
Controls gas fired roasters to remove moisture from coffee beans: Weighs batch of coffee beans in scale-hopper, and opens chute to allow beans to flow into roasting oven. Observes thermometer and adjusts controls to maintain required temperature. Compares color of roasting beans in oven with standard to estimate roasting time. Opens discharge gate to dump roasted beans into cooling tray. Starts machine that blows air through beans to cool them. Records amounts, types, and blends of coffee beans roasted.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

523.682-018 DEXTRINE MIXER (grain-feed mills)
Controls operation of steam-jacketed cooker that heats mixture of starch and acid to make dextrine paste: Opens gate on overhead chute or shovels starch into cooker. Adds specified amount of acid to start starch conversion process. Turns valves to admit steam into jacket of cooker. Starts agitator to stir cooking starch. Observes process to determine when conversion to dextrine is made and turns valve to transfer dextrine to storage tanks or drums.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

523.682-022 DRIER OPERATOR (can. & preserv.; dairy products) alternate titles: powder operator
Controls vacuum-drying equipment to convert egg or milk liquids into powder of specified moisture content: Couples spray unit between pipeline and drier, using wrench. Places charts in temperature and vacuum recorders. Starts gas-fired drier, vacuum pump, and circulating fan, and adjusts dampers. Turns controls and observes gauges to obtain specified temperature and vacuum pressure in dryer. Starts pump and turns valves to spray liquid into heated vacuum chamber where milk droplets are dried into powder. Tests dried powder conveyed out of drier, using meter. Observes interior of chamber walls for burned scale which indicates excessive temperature. Adjusts temperature of dryer and amount of liquid sprayed into dryer to obtain specified moisture content and eliminate scale which appears as sediment in powder. Places container on scale under outlet of drying equipment to fill container with specified amount of powder. May be designated according to product dried as Buttermilk-Drier Operator (dairy products); Yolk Spray Drier (can. & preserv.).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

523.682-026 DRUM DRIER (grain-feed mills)
Operates steam-heated drum drier in vacuum tank to dry liquid cereal mixture to specified consistency: Adjusts temperature regulator of vacuum tank to specified setting. Starts vacuum pump and revolving drum in vacuum tank. Turns valve to raise level of liquid in pan beneath drum, causing thin film of liquid to dry as it contacts rotating drum. Turns valve and moves controls to regulate drum temperature and speed and level of liquid in pan to attain specified color and consistency of dried cereal. Installs scraping blade that peels dried cereal from drum into handtruck, using wrench. Opens vacuum chamber and removes loaded handtruck. Pushes truck onto scale, records weight, and trips lever to dump contents into hopper.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

523.682-030 KILN OPERATOR, MALT HOUSE (beverage)
Controls gas-fired furnace that heats malt drying kilns: Pushes ignition switch and turns gas valve to light furnace. Observes temperature gauge or recording charts, and adjusts gas valves, dampers, and speeds of draft and exhaust fans to maintain specified temperature in kiln. May move levers that tip floor sections of kiln to drop dried malt into storage hopper. May open and control slide gate of storage hopper dispensing malt to cleaning machine.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

523.682-034 PERCOLATOR OPERATOR (grain-feed mills)
Operates percolating equipment to produce liquid mixture of water, grain, and other ingredients according to formula, as part of cereal-manufacturing process: Starts agitator and turns valves to draw premeasured amounts of milled grain, water, and other ingredients into percolating vessel. Sets temperature regulator of vessel at specified setting. Turns valve at bottom of tank to draw off liquid percolate into storage tanks. Tests sample of percolate, using hydrometer, to determine concentration of liquid filter bed and turns valve to shut off percolate flowing to storage tanks when hydrometer indicates ingredients in filter bed are exhausted. Pulls lever to dump spent grain mixture into handtruck.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

523.682-038 TOBACCO CURER (agriculture)
Controls heating equipment in tobacco barns to cure tobacco: Starts coal or wood fire in furnace, lights oil or gas burner, or turns on electric furnace to heat barn. Regulates temperature and draft controls, depending on type of tobacco and weather conditions, until leaves are yellowed. Observes color and moisture content of leaves to determine when to increase heat and regulate draft controls to dry leaves and stems. When bulk curing barns (tobacco leaves packed in metal racks and cured by forced air heat) are used, starts and regulates fan speed to control movement of air and heat through tobacco leaves.
GOE: 06.02.15 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

523.685-010 BATCH FREEZER (dairy products)
Tends batch freezer that freezes liquid ice cream mix to semisolid consistency: Measures specified amounts of ice cream mix, color, and flavor, using graduate, and dumps ingredients into freezer barrel. Starts beaters and refrigerating unit. Observes clock and ammeter for specified reading denoting end of freezing cycle and turns valve to start flow of frozen mix into containers. Places fixture which ripples ice cream into valve outlet, and stirs syrups into ice cream with spoon or adds candies, fruit, and nuts to make various varieties of ice cream. Places containers of mix in hardening cabinet. Washes and sterilizes equipment, using cleansing solution, brushes, and hot water.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

523.685-014 BLANCHING-MACHINE OPERATOR (can. & preserv.)
Tends machine that blanches fruits and vegetables preparatory to canning and preserving: Observes gauges, sets dials, and turns valves to fill machine with water and admit steam and to regulate temperature and blanching time. Starts machine, and conveyor or pump to feed product to and from machine. Feels and visually examines blanched product to determine adequacy of softening or color setting. May fill and weigh containers of blanched product, using shovel and platform scale. May feed paste products, such as spaghetti or noodles into machine by hand.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

523.685-018 CHILLING-HOOD OPERATOR (meat products)
Tends machine that chills cased chickens and chicken parts preparatory to storage in refrigerated holding rooms: Monitors thermometers and carbon dioxide gas pressure gauges, and turns regulating valve controls to adjust flow of gas refrigerant into cartons.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

523.685-022 CHOCOLATE TEMPERER (bakery products; grain-feed mills) alternate titles: chocolate maker; chocolate-mixer operator
Tends jacketed kettles to temper chocolate used for coating baked products: Breaks slabs of prepared chocolate into pieces and dumps pieces into kettle.

Turns valves to adjust kettle heat to specified temperature to melt chocolate. Starts agitator. Opens water valve to cool mixture to desired consistency. Opens valve to drain mixture into container and dumps chocolate into enrobing machine tank. May mix cocoa butter with melted chocolate for use as filling. May process grain to form gluten and be designated Premix Operator, Concentrate (grain-feed mills).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

523.685-026 COFFEE ROASTER, CONTINUOUS PROCESS (food prep., nec)
Tends coffee roaster equipped with rotating cylinder through which green coffee beans flow in continuous stream for roasting. Moves controls to regulate speed of cylinder rotation, rate of flow of beans, and temperature of oven for each coffee blend, according to specifications. May tend machine that grinds coffee beans [COFFEE GRINDER (food prep., nec)].
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.685-030 COOK-BOX FILLER (meat products)
Tends steam-jacketed tank in which flesh is removed from bones of animals: Lowers basket of bones into water-filled cooking tank, using hoist. Opens and regulates steam valves to heat water to specified temperature. Removes basket of cleaned bones from tank with hoist.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

523.685-034 COOKER, MEAL (oils & grease) alternate titles: cooker; heater tender; meal cook; meal temperer
Tends steam cooker that breaks down oil cells and controls moisture content of corn, soybeans, cottonseed, linseed meal (meats) or fish, prior to extraction of oil: Turns valves to regulate steam pressure inside cooker or steam jacket and to maintain temperature within specified range. Observes conveyor feeding material to cooker or climbs to top of cooker to determine that material is feeding continuously. May scoop handful of material from entry or discharge point of cooker and examine or feel material to determine how much steam should be added. May record steam pressure and temperature readings at specified intervals. May tend machine to crush meats for processing. May tend cake-forming machine to shape cottonseed meats for pressing [CAKE FORMER (oils & grease)].
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

523.685-038 COOLER TENDER (grain-feed mills)
Tends equipment that cools corn sugar syrup and transfers syrup to storage tanks: Observes thermometer and turns valves to regulate flow of cold water through cooling coils, and to start flow of syrup over coils. Starts pump to transfer cooled syrup to storage tanks. Draws samples to test for Baume (specific gravity), sulfur dioxide, acidity, and alkalinity.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

523.685-042 COOLING-MACHINE OPERATOR (beverage) alternate titles: cooler operator
Tends equipment that cools and transfers wort to starting tank preparatory to fermenting: Turns valves to control flow of refrigerant through cooler coils. Starts pumps and opens valves to draw hot wort from tank through cooler and into starting tank. Monitors pressure gauges, flowmeters, thermometers, and temperature recorders, and turns valves to control rate of flow and temperature of wort passing through cooling machine. Observes flowmeter and opens valves to admit specified amounts of air into wort. Opens valves to circulate solutions through wort coils to clean and sterilize lines.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

523.685-046 COOLING-PAN TENDER (can. & preserv.)
Tends equipment that cools preserves and fruit concentrate: Turns valve to admit water into jacket of cooling pan to cool preserves and fruit concentrate. Skims foam from top of preserves, using ladle. Stirs preserves or fruit concentrate with paddle to prevent coagulation and to allow even cooling. Observes thickening and starts pump, or opens dump valve, to transfer preserves or fruit concentrate from cooling pan to holding tank or filling machine when desired consistency is reached. May determine sugar content of preserves or fruit concentrate, using refractometer, and record results. May add sugar or water to preserves or fruit concentrate, according to formula, to bring sugar content up to standard. May start fan above cooling pan to aid cooling.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

523.685-050 CRYSTALLIZER OPERATOR (grain-feed mills)
Tends cooling tank and crystallizer that starts crystallization of liquid sugar: Turns valves and starts pumps to fill cooling tank with liquid sugar and regulate flow of cold water through cooling coils until specified temperature is attained. Turns wing nut to release tension on outlet door of crystallizer and pushes lever to raise door. Knocks out sugar plug to allow sugar to flow to centrifugals. Measures depth of sugar in crystallizer to ensure that small amount of sugar remains to start crystallization of next batch.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

523.685-054 DEHYDRATOR TENDER (can. & preserv.)
Tends sulfur and drying chambers to bleach and dehydrate fruit: Starts conveyors to load trays with fruit, and levels fruit in trays to ensure thorough processing. Pushes loaded cart into sulfurizing chamber and lights burner to generate fumes. Moves cart from sulfurizing chamber into drying chamber to dehydrate fruit. Observes gauges, and regulates and maintains specified temperature and humidity in drying chambers. Feels and observes fruit during dehydrating process to ascertain firmness and color in accordance with standards. Pulls cart from heating chamber. May record drying time of each load.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

523.685-058 DRIER ATTENDANT (can. & preserv.; grain-feed mills) alternate titles: dehydrator; steam drier
Tends rotary driers that remove moisture from materials, such as corn germs, alfalfa, and shredded sweet potatoes: Turns valves to admit steam through lines or fuel to furnace to heat drier. Observes gauges to verify drier temperature. Turns valves to regulate steam pressure or starts blower of furnace to regulate temperature of drier. Examines and feels discharged material or observes gauges to determine that moisture content of material conforms to standard. Turns handwheel or valve to control rate of speed and amount of material conveyed into drier. Starts blower to remove material from drier. May direct workers engaged in shredding potatoes and sacking dried material. May be designated according to material dried as Germ Drier (grain-feed mills); or method of heating drier as Fire Drier (grain-feed mills). May tend attrition and hammer mills [MILL OPERATOR (grain-feed mills)] in addition to rotary drier to prepare stock feed from bran and gluten and be designated Feed-Drier Tender (grain-feed mills).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

523.685-062 DRIER OPERATOR (can. & preserv.) alternate titles: flaker operator
Tends steam-heated drying machine that removes moisture from cooked potatoes preparatory to grinding into flour: Rakes uniform coating of cooked potato mash deposited from auger-type conveyor over heated revolving cylinder to remove moisture. May tend drying equipment that recovers starch byproduct from gluten wash.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

523.685-066 DRIER TENDER (can. & preserv.) alternate titles: nut-dehydrator operator
Tends machines that dehydrate nuts: Starts heater and sets thermostat to control air temperature. Starts blower system that forces warm air through nuts to dry them, improve storage qualities, and prepare them for further processing. Starts conveyor to move nuts into machine for dehydration. Tests dryness of nuts by feeling or by using moisture indicator. Attaches sack to discharge end of machine to catch dried nuts, or starts conveyor system that transfers dried nuts to storage bin. May sew sack, using needle and twine. May be designated according to kind of nut dehydrated as Walnut-Dehydrator Operator (can. & preserv.).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

523.685-070 DRIER TENDER (grain-feed mills)
Tends drying equipment to reduce moisture content of cooked grain to specified degree of dehydration for cereal products: Adjusts steam valves to regulate temperature and pressure of drier to specified levels. Turns valve or adjusts gate on conveyor to regulate amount of cereal entering drier. Turns handcrank to adjust speed of conveyor through drier. Visually and tactually inspects dried grain and collects samples throughout drying process to determine moisture content of grain. May turn valve and push button to start granulators and picker rolls that break lumps in cooked grain prior to or after drying.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.685-074 DRIER TENDER I (oils & grease)
Tends rotary drier that removes moisture from fish scrap preparatory to grinding scrap into meal: Starts drier and conveyors that feed fish scrap into drier and move dried material to storage area. Observes gauges and turns valves to regulate steam pressure and to keep temperature within prescribed range.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

523.685-078 FIRER, KILN (sugar & conf.)
Tends battery of char-kilns that revivify char used in filtration of liquor: Starts fires and regulates gas and air pressure in kilns and flow of water through heat exchanges to control temperature. Observes inside of kiln through peep-hole to detect wall defects and char leakages. Examines and adjusts equipment, such as char-draw mechanisms, emergency stop alarms, remote control switches, and water-sprays on char-conveyors.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

523.685-082 FREEZER TUNNEL OPERATOR (can. & preserv.)
Tends freeze tunnel to quick-freeze food products: Pushes switches to start and control speed of conveyorized screen that conveys food product through tunnel that flash freezes food as it passes. Turns valves to adjust temperature in tunnel and monitors temperature and pressure gauges to ensure conformance to company specifications. Patrols tunnel to observe progress of vegetables to ensure freezing and to detect machinery malfunctions. Scrapes conveyor to remove excess ice or frost from conveyor and to break vegetables loose from conveyor to prevent accumulation, using hands and handtools. Breaks excess ice from tunnel outlet to facilitate conveyorized frozen food off bearing. Notifies supervisor of machinery malfunctions. May tend machine that deposits breading onto food products [BREADING MACHINE TENDER (can. & preserv.)].
GOE: 06.04.15 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

523.685-086 GRAIN DRIER (beverage) alternate titles: spent-grain dryer
Tends steam or gas-fired drum to dry grain or yeast: Starts dryer, turns steam valve, or lights gas burner and observes thermometers and pressure gauges to

heat dryer to operating temperatures. Opens valve or starts screw conveyor and vacuum pump to convey wet grain through heated drum and into discharge hopper. Observes feeder gauge and turns valve or moves rheostat lever to adjust flow of yeast or grain to capacity of dryer. Feels dried grain or yeast to judge moisture content or measures with moisture meter. Adjusts valves to vary heat of dryer and grain and yeast flow to change moisture content to specifications. When drying grain, attaches cloth bag to discharge hopper. Weighs filled bag and seams top of bag, using portable sewing machine.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

523.685-090 GRAIN-DRIER OPERATOR (grain-feed mills)
Tends grain-drying machines that reduce moisture content of grain: Reviews data concerning moisture content of grain to be dried. Moves levers to regulate gate on feed hopper and flow of grain through drier. Observes temperature recorders and turns valves to regulate flow of steam pressure or gas to heat driers to specified temperature. May observe conveyors transferring grain from storage bin and control flow of grain into feed hopper. May test grain to ensure moisture content standards are being met, using moisture meter or standard oil-distillation test. May be designated according to grain dried as Rice-Drier Operator (grain-feed mills).
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.685-094 GRAIN-WAFER-MACHINE OPERATOR (bakery products)
Tends machines that soak, form, and bake whole grains of wheat or rice into wafers: Dumps sacks of grain into soaking tank. Turns valve to regulate flow of water into tank, and starts tank revolving. Turns off water after specified soaking period and starts air blower to dry grain. Pushes lever to empty tank, and starts screw conveyor that moves grain into feed hopper of baking machine. Lights gas burners to heat crushing and baking rollers. Starts machine that flattens and bakes grains into solid sheets. Turns valve to adjust temperature of rollers depending on color and texture of extruded sheet of wafers. Fills salting hopper, using hand scoop.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

523.685-098 GRANULATOR OPERATOR (sugar & conf.) alternate titles: sugar drier
Tends rotary-type kiln that dries sugar to specified moisture content: Starts equipment, such as scrolls, and conveyors. Turns valve to admit steam into heating coils, and starts fan that blows air around steam coils in drum. Opens gate on feed scroll to admit sugar to drum. Observes instruments to ascertain that temperature and humidity in drums are within specified limits. Adjusts gate or speed of feed scroll and amount of steam pressure in coils to control temperature, luster, and grist of sugar. Keeps records of station operations. Takes samples of sugar for laboratory analysis. Clears blockages in scrolls and magnetic screens, using mallet or brush.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

523.685-102 ICE MAKER (food prep., nec)
Tends refrigerating equipment that freezes water into ice, performing any combination of following tasks: Opens valves to fill containers with specified amounts of water, and lowers containers into freezing tanks, using hoist. Inserts air bubbler into containers and starts agitator in freezing tank to ensure uniform freezing. Siphons or pumps water containing foreign matter from centers of partially frozen ice blocks, using suction pump, and refills container with fresh water. Flushes surfaces of ice blocks with hose. Removes container from tank, using hoist, and immerses it in warm water or places it in steam bath to free ice from container sides. Positions cans on *dumping pivot* and pushes buttons to tilt pivot and dump ice onto conveyor or platform. Adds prescribed amounts of materials into mixing vats and starts agitator to mix brine solution for freezing tanks. May turn valves to regulate compressors and condensers. When performing specific duty, may be known as Can Filler (food prep., nec); Dumper (food prep., nec); Ice Puller (food prep., nec).
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

523.685-106 INSTANTIZER OPERATOR (dairy products)
Tends hydrating and drying equipment to make instant dairy products, using either of following methods: (1) Turns valves, starts fans, and observes thermometers and gauges to heat drying chamber to specified temperature and supply steam to hydrating jets. Starts conveyors and shaker screen. Turns dial to transfer powder from feeder hopper through steam spray, drying chamber, and vibrating screen into storage hopper. Turns steam valves and feeder dial to adjust temperature or powder flow to maintain specified moisture content. (2) Starts pumps, turns valves, and observes meter to spray water into hydrator at specified rate. Starts blower to push powder from storage hopper, through water spray, and onto conveyor leading to dryer and sizing rolls. Turns valve and observes thermometer to maintain specified temperature in dryer. Positions sizing rolls on conveyor, using wrench, to crumble dried powder to specified size. Examines and feels powder for moisture and charring.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

523.685-110 PASTEURIZER (beverage; can. & preserv.)
Tends machine that pasteurizes bottled or canned food products or beverages: Starts water spray or steam in pasteurizer and starts conveyor that moves bottles or cans through machine. Observes water or steam temperature gauge to ensure constancy of temperature or notifies quality control laboratory of deviations. Pushes pasteurized bottles or cans from machine table onto conveyor by hand or with metal bar to prevent jamming. Removes broken bottles from conveyor.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

523.685-114 STERILIZER OPERATOR (dairy products)
Tends conveyor line enclosed in series of circular chambers to cook canned milk to sterilize and change viscosity and color of milk: Turns steam, water, and hot air valves and observes gauges to adjust temperature of heating, cooking, cooling, and drying chambers. Observes panel lights for machine failure and stops conveyor to remove jammed cans. Observes filled sealed cans moving through chambers and removes dented cans or sample test cans. Opens sample can and dips spoon into sterilized milk to observe grain (texture), viscosity, and color. May alter cooking temperature or add measured amount of calcium or phosphate to milk batch to obtain specified grain and viscosity.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

523.685-118 TOBACCO-DRIER OPERATOR (tobacco) alternate titles: drying-oven tender
Tends driers that remove moisture from leaf and processed tobacco: Starts driers (rotating drums) and turns valves to admit steam to heat coils of driers or opens valves on gas burners and sets thermostat. Periodically feels tobacco to determine dryness and regulates heat to dry tobacco within specified limits. May record readings of humidigraphs and thermometers on chart. May feed tobacco into drier. May be designated according to types of tobacco dried as Snuff Drier (tobacco); Tobacco-Stem-Drier Operator (tobacco). May tend driers that impart distinctive flavor (toast) to tobacco and be designated Toaster Operator (tobacco).
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

523.685-122 VACUUM DRIER OPERATOR (can. & preserv.)
Tends vacuum drier system to dehydrate prebleached and preevaporated fruit in evaporating plant: Loads fruit-filled trays onto drier shelves and closes and seals doors. Turns switches and dials to start heater and set temperature and timing for preheating system's circulating water. Turns switches and dials in prescribed sequence to activate timer, water pumps, and condenser and to put system on automatic cycle. Turns hand-valve to break vacuum at end of cycle, sets timer, and allows fruit to cool. Removes filled trays from drier and turns and pulls trays across bin-mounted scraper to remove dehydrated fruit. Listens for sounds that indicate malfunctions, and notifies supervisor of malfunctions that fail to respond to specified corrective actions.
GOE: 06.04.15 STRENGTH: H GED: R3 M1 L2 SVP: 2 DLU: 77

523.685-126 WINE PASTEURIZER (beverage)
Tends tanks used to pasteurize fermented wine: Meters out specified quantities of wine into tanks and turns steam valves to admit heat. Observes thermometer readings and gauges of tanks to ensure heating of wine at required temperature for specified time to effect pasteurization. Starts pumps to transfer wine from pasteurizing tanks to storage tanks.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

523.687-010 COFFEE-ROASTER HELPER (food prep., nec)
Assists COFFEE ROASTER (food prep., nec) to roast green coffee beans: Picks over green coffee, discarding black and dead coffee beans, to prepare coffee for roasting. May weigh and pack ground coffee. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

523.687-014 FISH DRIER (can. & preserv.) alternate titles: fish flaker; flaker; flaker tender
Dries fish, such as salmon, cod, herring, or sardines: Hangs fish on racks or poles, or places them in trays. Sets racks, poles, or trays in drying room or oven.
GOE: 06.04.28 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

523.687-018 KILN LOADER (beverage)
Spreads germinated barley or green hops on kiln floor to dry: Holds and directs swing chute to discharge and spread barley or hops evenly over floor. Levels barley or hops, using fork. Loosens lock bolts to tip holding-kiln floor screens and drop barley or hops onto next drying floor or into storage hopper or pushes product into lower bin, using scraper. May clean and scrub malthouse floors.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

523.687-022 FREEZING-ROOM WORKER (can. & preserv.)
Moves racks of food packages into and out of freezing room: Wheels portable racks filled with food packages and fresh meat into freezing room for freezing. Records identifying data, such as brand name, package sizes, and time of entry in freezing room. Feels packages after specified time to test solidity of freeze. Notifies supervisor when specified quotas are filled, and when temperature fluctuates, or outside air leaks into freezing compartments. Pulls racks from freezing room with power winch when wheels are frozen.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 78

524 COATING, ICING, DECORATING, AND RELATED OCCUPATIONS

This group includes occupations concerned with applying coverings, fillings, sprays, and decoration to products or components to complete assembly, affect flavor and appearance, improve baking and keeping qualities, and serve as identification.

524.381-010 CAKE DECORATOR (bakery products) alternate titles: pastry decorator
Decorates cakes and pastries with designs, using icing bag or handmade paper cone: Trims uneven surfaces of cake or cuts and shapes cake to required

size, using knife. Spreads icing between layers and on surfaces of cake, using spatula. Tints white icing with food coloring. Inserts die of specific design into tip of bag or paper cone and fills bag or cone with colored icing. Squeezes bag to eject icing while moving bag with free-arm writing motions to form design on cake. Forms decorations on *flower nail* and transfers decorations to cake, using spatula. May mix icing.
GOE: 05.05.17 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

524.381-014 DECORATOR (dairy products)
Molds and decorates ice cream confections according to order: Packs ice cream into metal molds shaped as flowers, fruit, animals, cake, or pie, using spoon, knife, or spatula. Presses mold halves together and places mold in hardening cabinet. Immerses hardened molds in water, pries molds open and removes confection, using knife. Whips cream, sugar, and dye by hand or in machine beater to make whipped cream of specified color and consistency. Folds parchment paper into cone shape, places metal extrusion tip into bottom of cone and fills cone with whipped cream. Presses tube and moves tube over confection to create designs and figures, such as leaves, flowers, wreaths, or letters to decorate confection as indicated on order. Holds confection under stencil in tray and covers confection with whipped cream, using spatula, or with dye to form wording, using spray gun. May place paper, plastic or metal decorations on confection.
GOE: 01.06.03 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

524.382-010 COATING-MACHINE OPERATOR (sugar & conf.) alternate titles: candy polisher; coater; finisher; glazer; glosser; pan operator; polisher
Operates machine to coat items, such as candy, nuts, and chewing gum tablets, with syrup, wax coloring matter, or other material to provide specified finish or polish: Dumps product into pan and starts pan revolving. Pours specified quantity of syrup over whirling candy or other product, and passes hands through batch to spread syrup uniformly. Turns steam valve and observes thermometer to regulate pan temperature, according to changes in atmospheric conditions, or when hard coatings have been specified. Examines and feels product to determine adequacy of coating, and applies successive charges of syrup until specified coating thickness is attained. Adds flavoring and coloring ingredients in final coating, as specified. May mix together and apply emulsified or dry ingredients, such as gum solution, cornstarch, and powdered sugar to product. May transfer contents to polishing pans and add specified ingredients to polish coating. May set temperature controls and start blower to dry syrup. May be designated according to product coated or polished as Almond-Pan Finisher (sugar & conf.); Chocolate-Peanut Coating-Machine Operator (sugar & conf.); Gum Coater (sugar & conf.).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

524.382-014 ENROBING-MACHINE OPERATOR (bakery products; sugar & conf.)
Controls machines and equipment to enrobe (coat) confectionery or bakery products with melted chocolate or other coating and to cool enrobed products preparatory to packing: Turns switches and valves on central control panel and pushes levers to start machine and conveyor that transfer candy or other products over prebottoming device to coat bases, under flow pan to receive coating, past air nozzle to blow off surplus coating, over trimming device to wipe drippings from enrobed pieces, and through cooling tunnel to packing area. Weighs coated products at random to ensure specified thickness of coating and examines products for conformity to solidification, gloss, and uniformity of coating. Adjusts air blower, trimming rod, and flow of coating to correct product deviations. Turns switches and valves to adjust steam and water flow in jacketed supply tank, belt speed, and temperature of cooling tunnel in accordance with findings. May adjust automatic decorating device on machines so equipped to produce hand-dipped effect on coated product. May be designated according to coating material as Chocolate-Machine Operator (bakery products; sugar & conf.).
GOE: 06.02.15 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 77

524.565-010 TROLLEY OPERATOR (bakery products)
Tends trolley conveyors that convey icing-dipped cookies to cool and solidify them preparatory to packaging: Transports cookies and bowls of icing to other workers in trolley room, using handtruck. Weighs icing on scales, records weights, and dumps contents of bowl into reservoirs. Starts trolley conveyors and turns knob on rheostat to regulate its speed. Turns valve in steam line or starts ventilating fans to adjust temperature of trolley room.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

524.665-010 SANDING-MACHINE OPERATOR (sugar & conf.)
Tends equipment that applies coating of sugar to candy, such as gumdrops and orange slices: Dumps sanding sugar into hopper of rotating cylinder. Turns steam valve and starts conveyor that carries candy through steam bath for heating and moistening, and into cylinder for application of sugar coating. Examines sugared candy as it emerges on conveyor and adjusts flow of steam and sugar to correct imperfections in coating. Notifies other workers to remove malformed or improperly coated candies.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

524.682-010 DEPOSITING-MACHINE OPERATOR (bakery products) alternate titles: filling-machine operator; marshmallow-machine worker; spreading-machine operator
Operates machine to deposit filling, such as icing, marshmallow, or peanut butter on cookies or crackers: Installs specified nozzles in machine, using wrench. Starts pump to load machine hopper with filling. Starts conveyor to position cookies under nozzles. Turns valve to deposit specified amount of filling on cookies. Pulls lever to feed product under refrigerated roller to spread filling over cookies. Wipes filling from roller, using wet cloth. Verifies weight of cookies on scale. May place pans or sheets of cookies under nozzles. May mix ingredients for filling.
GOE: 06.02.15 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

524.684-010 CANDY DIPPER, HAND (sugar & conf.)
Dips candy centers, fruit, or nuts into coatings to coat, decorate, and identify product: Scoops liquid coating material onto slab of heated dipping table and kneads material, such as chocolate, fondant, or icing to attain specified consistency. Drops candy into mass and swirls candy about until thoroughly coated, using fingers or fork. Removes candy and marks identifying design or symbol on top, using fingers or fork, to identify type of center or brand. May decorate top of candy with nuts, coconut, or other garnishment. May mix coating ingredients and dip candy into vat containing coating material, regulating vat temperature to maintain specified consistency. May pour liquid chocolate into molds to form figures [CANDY MOLDER, HAND (sugar & conf.)]. May be designated according to type of center dipped as Bonbon Dipper (sugar & conf.); Cherry Dipper (sugar & conf.); Cream Dipper (sugar & conf.); Pecan-Mallow Dipper (sugar & conf.); or according to type of coating as Chocolate Coater (sugar & conf.); Icing Coater (sugar & conf.).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

524.684-014 DECORATOR (bakery products; sugar & conf.) alternate titles: decorator, hand; ornamenter
Decorates confectionery products with chocolate, colored icings, or pastry cream: Screws nozzle of specified size and shape into outlet of decorating bag. Fills bag with icing, chocolate, or pastry cream. Squeezes bag to force material through nozzle, forming decorations, such as lines, letters, figures, or flowers. May mix, cook, and color decorating material. May spread material with brush, fingers, pronged instrument, or spatula. May fill molds with icing to form decorations, such as bells, birds, and bootees. May be designated according to product decorated as Candy Decorator (sugar & conf.).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

524.684-018 ENROBING-MACHINE CORDER (sugar & conf.) alternate titles: decorator, hand; streaker; stringer; stroker
Marks top surface of coated candies with identifying or decorative stroke to simulate hand-dipped appearance: Dips fingers in semiliquid chocolate or other coating and marks candies with diagonal line, bead, or other design as candies emerge from enrobing (coating) machine on conveyor. May mark tops of candies with symbol to identify type of center or flavor of candy.
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

524.684-022 ICER, HAND (bakery products) alternate titles: decorator; finisher; froster; icing spreader
Covers baked goods with icing, frosting, or glaze by hand: Spreads icing evenly over surface of solid baked goods, using spatula. Builds up layer cakes by spreading icing or filling between layers and then icing outer surface. Applies glaze or thin icings to sweet rolls, fruit cake, speciality breads, and other items, using brush. May sprinkle chocolate chips, shredded coconut, chopped nuts, or other decorative materials over baked goods. May mix icings. May pack iced products in cartons. May be designated according to product iced as Bread Icer (bakery products); Cake Icer (bakery products); Doughnut Icer (bakery products); Pie Icer (bakery products); Roll Icer (bakery products).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

524.685-010 BREADING MACHINE TENDER (can. & preserv.)
Tends machine that covers food products with breading material: Opens bag and dumps breading material into breading machine hopper. Turns valve to regulate flow of breading material onto food products on conveyor passing beneath hopper. Observes machine to detect malfunction. Cleans machine and conveyor with water.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

524.685-014 CHEESE SPRAYER (sugar & conf.)
Tends equipment that coats popcorn or similar food product with melted cheese: Dumps salt into hopper of salt-sprinkling device. Measures out specified quantity of cheese and coconut oil into thermostatically controlled melting and mixing kettle. Starts conveyor to admit popcorn to rotating drum. Starts drum rotating and pump that forces melted cheese through spray nozzle onto popcorn. Places container at discharge end of drum to receive coated popcorn. Transfers filled containers to packing room, using handtruck.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

524.685-018 COATING OPERATOR (grain-feed mills)
Tends coating and drying equipment that coats cereal products, such as flakes or puffed grain, with syrup, vitamin mixture, or other liquid: Lights gas burners or turns steam valve to attain specified temperature in drier and syrup storage tank. Starts revolving drum and conveyors that feed cereal product into drum and through drier. Pumps liquid from storage tank to perforated spraying pipe in drum. Adjusts speed of conveyor and drum to coat cereal to specified thickness, indicated by feel and color inspection.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

524.685-022 CRACKER SPRAYER (bakery products)
Tends machine that sprays crackers with oil to impart color and prevent drying out: Pours oil into reservoir, using pail. Adjusts steam valve to heat oil to

specified temperature. Starts machine and turns valves to regulate spray of oil on crackers. Feeds crackers onto conveyor. Weighs sampling of crackers to measure amount of oil being applied.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

524.685-026 ENROBING-MACHINE OPERATOR (bakery products) alternate titles: chocolate-coating-machine operator; enrober

Tends equipment that melts and sprays chocolate on cookies or crackers to enrobe (cover) them: Fills machine hopper with chocolate, using buckets or conveyor. Turns valve to regulate temperature of tank to melt and facilitate flow of chocolate, according to thermometer reading. Starts machine to spray chocolate on cookies or crackers. Observes cookies emerging from machine to ensure adequate coating. May melt and temper chocolate [CHOCOLATE TEMPERER (bakery products; grain-feed mills)].
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

524.685-030 FILLING MACHINE TENDER (bakery products)

Tends machine that automatically injects cream filling into snack-size cakes: Starts pump to fill machine hopper with filling. Presses button to activate conveyor that conveys cakes under nozzles that automatically inject filling into cakes. Observes cakes being filled to ascertain that cream is injected into center of cakes in prescribed portions. Observes action of automatic dumping device at end of conveyor to ensure that all cakes in pan are dumped onto another conveyor which routes them for packaging. Cleans residual filling from machine hopper and nozzles. May turn hand valves to regulate pressurized flow and quantities of cream filling injected into cakes. May collect and weigh measured amounts of aerated filling to ensure conformance with gravity specifications. May remove, discard, and keep tally of unacceptable cakes.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

524.685-034 ICER, MACHINE (bakery products) alternate titles: finisher, machine; froster, machine; icing-machine operator

Tends machine that coats baked products with premixed icing: Loads machine hopper with icing, using scoop. Starts machine and places products to be iced on conveyor. Turns valve on hopper to regulate flow of icing. May be designated according to product iced as Bread Icer, Machine (bakery products); Cake Icer, Machine (bakery products); Doughnut Icer, Machine (bakery products); Pie Icer, Machine (bakery products); Roll Icer, Machine (bakery products).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

524.685-038 MEXICAN-FOOD-MACHINE TENDER (food prep., nec)

Tends machine that automatically dispenses cheese onto tortillas to form enchiladas or ground meat onto taco shells to form tacos: Fills vat with meat or cheese mixture and turns control knobs to regulate flow of filling through dispenser mechanism. Presses button to convey tortillas or taco shells under dispenser mechanism. Periodically weighs sample product, using scale, and turns knob to adjust dispenser flow to maintain specified weight of product.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

524.686-010 ENROBING-MACHINE FEEDER (sugar & conf.) alternate titles: candy feeder; candy separator, enrobing; enrober tender

Arranges candy centers on conveyor leading to enrobing (coating) machine according to specified feeding sequence: Selects assorted centers from boxes or trays and places them in rows on conveyor belt to conform to individual box or layer arrangement. Removes malformed or broken centers and places them in salvage box.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

524.686-014 NOVELTY WORKER (dairy products) alternate titles: cone chocolate dipper; cone racker; sticker

Performs any combination of following tasks to make ice cream novelties, such as pies, cake rolls, cones, and vari-colored packs: Ladles fruit sauce over ice cream pie. Places layer of cake roll on tray and sets tray on conveyor. Cuts continuous ribbon of ice cream deposited on cake, using knife. Rolls up cake. Places roll in slicing machine and pulls lever to cut and eject slices onto packing table. Rotates transparent containers under nozzle that fills containers with vari-colored ice cream. Places cones, cups, pie plates, and other containers into dispenser of automatic filling machines.
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

524.687-010 CHERRY CUTTER (can. & preserv.)

Cuts candied cherries into halves for use in decorating cakes, using sharp hand knife. May assist in the packing department as directed.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

524.687-014 GARNISHER (sugar & conf.)

Garnishes candy and fills dried or pitted fruit, such as prunes, dates, peaches, and figs, with nuts to make confections: Places nuts on top or presses them into candy or fruit items. Rolls candy in chopped or ground nut meats to coat product. May be designated according to task performed as Fruit Stuffer (sugar & conf.); Roller (sugar & conf.) II.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

524.687-018 RACKER (bakery products)

Loads wire racks with cookies, crackers, and wafers preparatory to their being dipped in icing: Removes wire rack from overhead trolley conveyor and places products on rack. Lifts and hooks rack to conveyor. May impale products on pins of wire rack and be designated Sticker (bakery products).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

524.687-022 BAKERY WORKER, CONVEYOR LINE (bakery products)

Performs any combination of following tasks in preparation of cakes along conveyor line: Reads production schedule or receives instructions regarding bakery products that require filling and icing. Inspects cakes moving along conveyor to detect defects and removes defective cakes from conveyor to reject bins. Positions cakes on conveyor for application of filling or icing by machine, observes filling or icing application to ensure uniform coverage, and places additional cake layers on coated layers, depending on number of cake layers in product. Observes cakes moving under automatic topping shaker and cake cutting machine to ensure uniform topping application and cutting. Smooths iced edges of cake, using spatula, and moves decorating tool over top of designated cakes to apply specified appearance. Notifies supervisor of malfunctions.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 86

525 SLAUGHTERING, BREAKING, CURING, AND RELATED OCCUPATIONS

This group includes occupations concerned with killing animals for use as food or byproducts, cutting up carcasses, and preserving and flavoring food, and related products by salting or smoking them.

525.131-010 SUPERVISOR, ABATTOIR (meat products)

Supervises and coordinates activities of workers engaged in slaughtering, skinning, and dressing cattle, hogs, and sheep on killing floor of abattoir: Directs and trains workers in use of knife, air-knife, saws, and other handtools. Inspects meat for specified color and texture to verify conformity to government regulations. Sets control timer to regulate conveyors according to production schedules. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

525.131-014 SUPERVISOR, CUTTING AND BONING (meat products)

Supervises and coordinates activities of workers engaged in cutting cattle, sheep or swine carcasses into standard cuts, removing bones and trimming excess fat from cuts, and preparing special cuts for marketing: Instructs new employees in cutting carcasses and preparing special cuts. Examines cuts of meat to determine if quality standards are met. Directs COOLER ROOM WORKER (meat products) in selection of carcasses to be processed. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

525.132-010 SUPERVISOR, CURED MEATS (meat products)

Supervises and coordinates activities of workers engaged in curing and smoking meats, such as bacon and hams, following formulas for pickling meats and specifications for operating smokeroom equipment: Trains workers in operation of equipment. Mixes dry and liquid pickling mixtures [PICKLING SOLUTION MAKER (meat products)]. Controls smokeroom equipment to smoke meat [SMOKER (meat products)]. Observes dial indicators and recording instruments to verify specified operating conditions of smokerooms and to detect machine and equipment malfunctions. Observes color and appearance of meats and feels meats to verify quality. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 6 DLU: 77

525.132-014 SUPERVISOR, TANK HOUSE (meat products)

Supervises and coordinates activities of workers engaged in processing slaughtering-and-meat-packing byproducts, such as tallow, hides, and cracklings (residual solids from extracting tallow from bone, trimmings, and viscera): Trains new employees in operation of equipment. Observes meters and dials to verify specified pressures and temperatures at various process stages. Moves controls to regulate equipment and correct equipment malfunctions. May supervise trimming and packing of offal products, such as tongues, livers, and tails. May assist in purchase of hides and sales of offal products. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

525.134-010 SUPERVISOR, FISH PROCESSING (can. & preserv.)

Supervises and coordinates activities of workers engaged in cleaning, eviscerating and preparing fish for packing or canning: Trains workers to clean, eviscerate or prepare fish for packing or canning. Inspects fish at various stages of processing to determine if company standards are being met. Performs other duties as prescribed under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: M GED: R4 M2 L2 SVP: 7 DLU: 77

525.134-014 SUPERVISOR, POULTRY PROCESSING (meat products)

Supervises and coordinates activities of workers engaged in slaughtering, dressing, and packing poultry: Trains new workers in slaughtering, dressing, and packing duties. Observes and evaluates performance of workers to ensure conformance to processing standards. May substitute for line workers in emergencies. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

525.361-010 SLAUGHTERER, RELIGIOUS RITUAL (meat products)

Slaughters cattle, calves, and sheep as prescribed by religious law, and examines parts of carcasses to determine whether carcasses meet standards estab-

lished by specific religion: Sharpens knife on whetstone or sharpening steel and washes knife. Cuts throat of animal, using single stroke. Inspects carcass and internal organs to verify absence of diseases. May inspect and bid for animals at auction. May offer ritual prayers while slaughtering animal. May inflate lungs with air to determine whether lungs are punctured. May mark carcasses of animals that meet religious standards. May butcher meat for marketing. May be required to hold license issued by religious organization. May be designated according to specific religious group, such as Islamic Butcher (meat products), Shactor (meat products), Halal Butcher (meat products), Kosher Cutter And Searcher (meat products), or Shochet (meat products).
GOE: 06.03.01 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 86

525.381-010 BUTCHER APPRENTICE (meat products) alternate titles: slaughter-and-butcher apprentice

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.02.28 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

525.381-014 BUTCHER, ALL-ROUND (meat products)

Performs slaughtering and butchering tasks in small slaughtering and meat packing establishment, using cutting tools, such as cleaver, knife, and saw: Stuns animals prior to slaughtering [STUNNER, ANIMAL (meat products)]. Shackles hind legs of animals, such as cattle, sheep, and hogs, to raise them for slaughtering or skinning [SHACKLER (meat products)]. Severs jugular vein to drain blood and facilitate slaughtering [STICKER, ANIMAL (meat products)]. Trims head meat and otherwise severs or removes parts of animal heads or skulls [HEAD TRIMMER (meat products)]. Saws, splits, or scribes slaughtered animals to reduce carcass [CARCASS SPLITTER (meat products)]. Slits open, eviscerates, and trims carcasses of slaughtered animals. Cuts, trims, skins, sorts, and washes viscera of slaughtered animals to separate edible portions from offal [OFFAL SEPARATOR (meat products)]. Washes carcasses [WASHER, CARCASS (meat products)]. Wraps muslin cloth about dressed animal carcasses or sides to enhance appearance and protect meat [SHROUDER (meat products)]. Shaves hog carcasses [SHAVER (meat products)]. Trims and cleans animal hides, using knife [HIDE TRIMMER (meat products; oils & grease)]. Cuts bones from standard cuts of meat, such as chucks, hams, loins, plates, rounds, and shanks, to prepare meat for marketing [BONER, MEAT (meat products)]. Examines, weighs, and sorts fresh pork cuts [GRADER, GREEN MEAT (meat products)]. Skins sections of animals or whole animals, such as cattle, sheep, and hogs [SKINNER (meat products)]. Works in small slaughtering and meat packing establishment. May prepare meats for smoking [SMOKED MEAT PREPARER (meat products)]. May cut and wrap meat. May salt (cure) and trim hides [HIDE HANDLER (meat products; oils & grease)].
GOE: 06.02.28 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

525.387-010 GRADER, MEAT (meat products)

Examines animal carcasses to determine grade in terms of sales value: Examines carcasses suspended from stationary hooks or hooks attached to overhead conveyor to determine grade based on age, sex, shape, thickness of meat, quantity and distribution of fat, color, texture, and marbling of lean meat. Attaches grade identification tag to carcass. May estimate weight of carcass or observe dial of automatic weighing scale to determine weight of carcass. May be designated according to carcass graded as Beef Grader (meat products); Hog Grader (meat products); Sheep Or Calf Grader (meat products).
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L1 SVP: 5 DLU: 77

525.587-010 SHROUDER (meat products) alternate titles: bagger

Covers dressed animal carcasses with muslin to protect meat during storage or shipment: Trims ragged edges of flesh from carcass, using knife. Soaks muslin in brine solution and drapes wet muslin around suspended carcass. Pins muslin to carcass, using skewers. Slides carcass along conveyor and onto scale, and records weight. Pushes carcass to conveyor leading to storage or shipping areas. May wash carcass, using water hose.
GOE: 06.04.38 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.587-014 SMOKED MEAT PREPARER (meat products)

Prepares meats for smoking, performing any combination of following tasks: Soaks meat in water or brine and washes and scrapes encrusted salt, slime, grease, excess moisture, and discoloration from meat. Weighs meat and stamps or presses inspection labels, weight, or symbols on meat by hand or using branding iron. Ties cord through small end of hams and shoulders to form hanging loop. Encases meat in stockinets (cloth bags) to preserve shape of meat during smoking. Places metal hanging devices on racks, and hangs slabs of bacon on hooks of devices. Hangs meat products on tree racks suspended from conveyor and starts conveyor to move products to smokeroom. May strip stockinets from meat. May trim and bone hams. May be known according to task performed as Bagger, Meat (meat products); Comber (meat products); Hanger, Meat (meat products); Scraper, Meat (meat products); Soaker, Meat (meat products); Tier, Meat (meat products); Tree Loader, Meat (meat products); Washer, Meat (meat products).
GOE: 06.04.28 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

525.664-010 MEAT DRESSER (agriculture) alternate titles: farm butcher

Butchers livestock, such as hogs, sheep, and cattle, in private slaughter house or on customer's premises: Kills animals, using rifle and sticker knife. Raises carcass from floor, using hoist. Skins animal with skinning knife and cleans carcass with brush and water. Cuts carcass for packing, smoking, freezing, and salting, according to knowledge of meat cutting and customer's specifications, using saw, knives, and cleaver. May wrap meat. May grind meat into sausage.
GOE: 03.04.05 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

525.682-010 SMOKER (meat products) alternate titles: meat smoker; smokehouse attendant

Controls battery of smoke chambers in which meats, such as bacon, hams, meat loaf, sausage, shoulders, and wieners are cooked and cured: Loads racks and cages, suspended from overhead conveyor, with meat products and filled molds, and pushes racks into smokehouse for cooking and curing. Shovels sawdust into hopper of smoker and lights burner to ignite sawdust. Starts electric blower to admit air and blow smoke into curing chambers. Observes gauges, turns steam valves, and adjusts ventilators and dampers to regulate temperature, humidity, and density of smoke to control cooking and curing process. Inspects meat for color, feels meat for firmness, and inserts thermometer into meat to ascertain progress of cooking and curing. Opens water valve to spray and chill meat. Removes cooked and cured meat and empties molds. Places meat loaves on racks and returns them to smokehouse for further smoking and drying. Pushes racks of cured meat to chill room. May stuff meat loaves into plastic casings, using horn (funnel-shaped tube). May record weight and amount of meat cured. May steam-clean smoke chambers and heating coils, and remove ash.
GOE: 06.02.15 STRENGTH: H GED: R3 M2 L1 SVP: 4 DLU: 77

525.684-010 BONER, MEAT (meat products) alternate titles: ribber

Cuts bones from standard cuts of meat, such as chucks, hams, loins, plates, rounds, and shanks to prepare meat for packing and marketing, using knife and meat hook: Inserts knife in meat around bones to separate meat, fat, or tissue. Pulls and twists bones loose from meat. Cuts and trims such meat cuts as butts, hams, flanks, and shoulders to shape meat and remove fat and defects. Trims meat from bones and ribs. May pull bones and skin from cooked pigs feet, and cut out toe bones and nails. May be designated according to cut of meat boned as Blade Boner (meat products); Chuck Boner (meat products); Ham Boner (meat products); or type of animal boned as Beef Boner (meat products); Hog Ribber (meat products); Sheep Boner (meat products). May be designated: Loin Boner (meat products); Plate Boner (meat products); Rib Boner (meat products); Round Boner (meat products); Shank Boner (meat products); Shoulder Boner (meat products).
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L2 SVP: 4 DLU: 77

525.684-014 BUTCHER, FISH (can. & preserv.)

Butchers eviscerated frozen, fresh, and salted fish for marketing or further processing: Dumps containers of fish into fresh water tank for cleaning. Places cleaned fish on table or bench. Trims off fins and tails, removes skin, and cuts fish into pieces of specified size, using knife or bandsaw. Sorts pieces according to color and texture.
GOE: 06.04.28 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

525.684-018 CARCASS SPLITTER (meat products)

Performs any combination of following tasks involved in dismembering and cutting up hog, veal, beef, and other animal carcasses to facilitate handling preparatory to marketing or further processing, using knife, cleavers, hand and power saws, and other cutting tools: Saws or cuts through pelvic area of animal, and splits belly to expose and remove viscera. Splits suspended carcass in half lengthwise along backbone of beef sides, and smooths and shapes beef with paddle. Saws ribs along interior of hog carcasses to facilitate removal of loins and ribs. Cuts, cleaves, or saws carcass sections to sever forequarters, hindquarters, shoulders, rumps, legs, and other parts. Saws trimmed bones, such as skulls, ribs, and legs, into pieces preparatory to processing into byproducts. May be known according to type or part of animal cut as Aitchbone Breaker (meat products); Beef Ribber (meat products); Bone Sawyer (meat products); Breast Sawyer (meat products); Ham Sawyer (meat products); Hog Sawyer (meat products). May be designated: Rump Sawyer (meat products); Shoulder Sawyer (meat products); Side Splitter (meat products).
GOE: 06.04.28 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

525.684-022 CRAB BUTCHER (can. & preserv.) alternate titles: crab backer

Butchers live crabs preparatory to canning: Grips crab with both hands and impales it on stationary spike. Twists, pulls, and detaches crab body from back, leaving back on knife. Wipes off gills and viscera and tosses crab body in vat of water. Pulls crab back from knife and discards it.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.684-026 FINAL-DRESSING CUTTER (meat products)

Cuts out defective portions of dressed animal carcasses, following established procedures: Trims or skins carcass to remove residual blood, fat, hair, ragged edges, and overscalded skin, using knife. Cuts condemned parts, such as broken bones and bruised flesh, from carcass under direction of government inspector, using knife, cleaver and saw. May cut up condemned animals for rendering. May be designated according to work area as Final-Rail Cutter (meat products); Retaining-Room Cutter (meat products).
GOE: 06.04.28 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

525.684-030 FISH CLEANER (can. & preserv.; fishing & hunt.) alternate titles: dress-gang worker; fish cutter; fish dresser

Cleans fish aboard ship or ashore, performing any combination of following tasks, alone or as member of crew: Scrapes scales from fish with knife. Cuts or rips fish from vent to throat with knife, and tears out viscera and gills. Cuts off head of fish with knife, drops head in tub, and slides fish along table to

next worker. Washes blood from abdominal cavity by dropping fish in tub of water or by use of hose, and removes discolored membrane from abdomen lining with knife, spoon, scraper, glove, or piece of burlap. Cuts gashes along sides of fish to facilitate salt penetration during curing. Cuts fish behind gill slits, draws knife along backbone and ribs to free fillet (boneless portion of flesh), lays fillet skinside down on table, and draws knife laterally between skin and flesh to remove skin. Slices flesh from bones in fletches (longitudinal quarter sections) for further processing into boneless slices of fish. Unloads catch from fishing vessels [LABORER, WHARF (can. & preserv.) 922.687-062]. May pack fish in containers. May remove slime from fish preparatory to canning and be designated Slimer (can. & preserv.; fishing & hunt.). May clean, dress, wrap, label, and store fish for guests at resort establishments and be designated Fish Housekeeper (hotel & rest.). May fillet fish and be designated Fish Filleter (can. & preserv.; fishing & hunt.).
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 78

525.684-034 HEAD TRIMMER (meat products) alternate titles: head boner; templer, head
Trims meat, glands, and organs from carcass heads for use in making meat products or processing for medicinal use or byproducts, performing any combination of following tasks: Places head on table or in holding hooks and trims skin and meat from jaw, jowls, and skull with knife. Cuts fat from lean meat and drops it into containers. Inserts knife into mouth cavity to cut and remove tongue. Trims fat, ragged edges, veins, and bruises from tongue. Cuts and pulls hog snout from head, using knife and snout-pulling machine. Pulls jaw from skull, using jaw pulling machine, bar, or chisel. Places skull on block and splits it with automatic splitter or cleaver. Removes brains, pituitary gland, and other parts, and places them in separate trays. Removes horns from head, using shears. May be known according to duty performed as Brain Picker (meat products); Chiseler, Head (meat products); Jawbone Breaker (meat products); Jowl Trimmer (meat products); Snout Puller (meat products); Splitter, Head (meat products); Temple-Meat Cutter (meat products); Tongue Cutter (meat products).
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

525.684-038 OFFAL SEPARATOR (meat products)
Separates edible portions of animal viscera from offal, performing any combination of following tasks: Cuts away such organs and glands from adjoining tissue as heart, sweetbreads, stomach, spleen, gall bladder, liver, and thyroid, using knife. Skins outer tissue of bung gut with fingers. Washes parts and places them in containers. Cuts off ends of oxtails and trims loose tissues, using knife and rotary brush. Trims excess fat and tissue from muscles, intestines, and organs, using knife. Separates membrane from gullet and windpipe, inner lining from stomach, and small intestines from large. Flushes intestines and bladders with water hose and squeezes them to remove water, slime, and foreign matter. Weighs and sorts viscera, according to condition, and discards diseased or damaged parts. Bleaches casings (intestines) by soaking them in salt solution. Stamps plant identification number on edible organs, using rubber stamp. Brands tails and tongues with electric iron. May tend machine that washes viscera and flesh parts. May grind meat. May be known according to functions performed or part of viscera processed as Beef-Pluck Trimmer (meat products); Bladder Trimmer (meat products); Bung Grader (meat products); Casing Puller (meat products); Liver Trimmer (meat products); Lung Splitter (meat products); Viscera Washer (meat products).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.684-042 POULTRY KILLER (meat products) alternate titles: sticker
Severs jugular vein with knife to slaughter suspended fowl passing on overhead conveyor.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

525.684-046 SKINNER (meat products)
Skins sections of animals or whole animals, such as cattle, sheep, and hogs, performing any combination of following tasks as member of a crew: Slits skin on head of carcass, and pulls and cuts connective tissue until head and neck are exposed, using knife. Severs head from carcass of animal, using knife and cleaver and places it on racks for inspection. Trims meat or fat from head skins. Slits remaining hide on carcass from breastbone to crotch. Pulls, cuts, and forces hand between hide and carcass to break connective tissue and separate it from neck, sides, shoulders, flanks, back, and tail of suspended carcass. Breaks and severs legs at knee joint, and removes such parts as dew claws, bungs, tails, and genital organs. Raises cattle from floor, using hoist, and pulls hide off carcass by hand or using pinchers. Severs and exposes gullet and windpipe on small stock, using knife, and ties gullet to prevent leakage of fluid when viscera is removed. Slits womb of cattle with knife to remove slunk (unborn calf). Shackles neck of slunk and pulls off skin, using winch. May saw brisket bone on cattle. May skin pork, using drawknife. May be designated according to kind of animal or portion of carcass skinned as Backer (meat products); Calf Skinner (meat products); Cattle Header (meat products); Slunk Skinner (meat products). May be designated: Cattle Dropper And Pritcher (meat products); Leg Skinner (meat products); Shoulder Puncher (meat products); Small-Stock Facer (meat products).
GOE: 06.04.28 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

525.684-050 STICKER, ANIMAL (meat products)
Severs jugular vein of previously stunned animals with knife to prepare animals for butchering: Positions neck of animal suspended from overhead rail or shackled on table for sticking. Thrusts knife into throat of animal and twists blade to locate and sever jugular vein. May shackle and suspend animal before sticking [SHACKLER (meat products)]. May sever head and remove skin with knife, after blood has drained. May be designated according to animal killed as Calf Sticker (meat products); Cattle Sticker (meat products); Hog Sticker (meat products); Sheep Sticker (meat products).
GOE: 06.04.28 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

525.684-054 TRIMMER, MEAT (meat products)
Trims fat, skin, tendons, tissues, and ragged edges from meat cuts, such as loins, spareribs, butts, hams, rounds, sirloins, fillets, and chops, using meathook and knife: Trims meat and fat from bones and places trimmings and bones in separate containers. Trims fatback from hog bellies and cuts bellies into specified shapes, using knife. Feeds bacon bellies through rolls to flatten bellies to prescribed thickness. May wash or scrape dirt and blood from meat. May be designated according to section of meat trimmed as Belly Trimmer (meat products); Butt Trimmer (meat products); Fatback Trimmer (meat products); Loin Trimmer (meat products); Spareribs Trimmer (meat products).
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.684-058 TURKEY-ROLL MAKER (meat products)
Cuts, bones, and sews parts of eviscerated turkeys together to form turkey roll, using knife and needle and thread: Cuts legs, wings, thighs, and whole skin from turkey and sews together wing holes in carcass. Cuts breast meat from bones and sews two portions of meat together. Rolls meat, places roll on opened turkey skin, overlaps skin on meat, and sews ends together to form roll.
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.685-010 BAND-SAW OPERATOR (meat products)
Tends electrically powered bandsaw that cuts portions from hams to prepare hams for smoking, curing, or packing processes: Lifts ham from meat tank onto saw table, using meat hook. Presses button to start saw and adjusts saw gauges according to size of ham. Pushes and guides ham into saw blade by hand or with wooden device to cut shank from ham or to remove tip from shank. Pushes sawed meat onto conveyor for further processing. May tend bandsaw that cuts poultry into serving pieces for packaging.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

525.685-014 CASING-RUNNING-MACHINE TENDER (meat products) alternate titles: casing runner; shirring tender
Tends machine that gathers casings into short lengths on horns (metal nozzles of sausage-stuffing stuffing machine) to facilitate stuffing of casings with emulsified meat: Places reel of flattened casings on holder of gathering machine. Threads casing between feed rollers, onto tube, and onto take-up reel. Starts machine that automatically expands and rounds casings. Cuts rounded casings from reel into specified lengths, using cutting attachment on machine. Places horn over water pipe, fits casing over end of horn, and turns valve to flow water through pipe and into casing to facilitate gathering of casing on horn. Places horn between two cone-shaped rollers which force and gather casing lengths over horn. Removes loaded horn and places horn in container.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

525.685-018 DEHAIRING-MACHINE TENDER (meat products)
Tends equipment that dehairs slaughtered hogs preparatory to dressing: Turns steam and water valves to fill scalding tank with water and heat it to specified temperature. Starts machine conveyors, and releases hogs shackled to overhead rail to drop them into tank by tripping lever on shackle or prying shackle loose with steel bar. Pushes hogs through vat and into dehairing machine, using pole, or hooks hog's leg to conveyor chain that pulls hog through tank and dehairing machine. May cut slit in leg to expose tendon for hooking to conveyor chain. Opens exit door of machine and pulls carcass onto conveyor. May be known according to specific task performed as Dropper, Dehairing Machine (meat products); Feed-in Tender, Dehairing Machine (meat products); Pull-Through Hooker (meat products); Scalder (meat products).
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

525.685-022 HIDE PULLER (meat products)
Tends machine that pulls hides from carcass: Pulls lever to position clamps on each side of carcass. Places ends of hide previously separated from carcass into clamps and pulls lever to lock hide in place. Starts machine that forces carcass forward, tearing off hide. Rips brisket open to expose viscera, using portable power saw.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

525.685-026 POULTRY-PICKING MACHINE TENDER (meat products)
Tends machines that scald, remove feathers, singe, and wash slaughtered poultry preparatory to eviscerating and disjointing: Adjusts clearance between revolving brushes of machine to achieve maximum feather removal without bruising or tearing skin of poultry. Scans poultry emerging from picking machines to determine if poultry are scalded to specifications and turns steam valves to increase or decrease temperature levels.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.685-030 SKIN-PEELING-MACHINE OPERATOR (meat products)
Tends machine that removes cellophane or plastic covering from smoked meat products, such as link-sausages, frankfurters, and wieners, to produce skinless variety: Turns setscrews to adjust skinning mechanism according to size of product. Starts machine and feeds strand of linked-meat into machine. Peels remaining fragments of covering from product, using knife.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.686-010 CASING CLEANER (meat products)

Feeds animal intestines into machine rollers that prepares them for use as sausage casings: Soaks intestines in vats of warm water to loosen waste matter and deposits. Separates soaked intestines and removes loosened matter. Feeds intestines between crushing and finishing rolls that strip (squeezes out) lime, fat, and mucus, and roll casing into shape. Measures and ties casings into bundles, and packs bundles in salt for shipment. Unpacks cured casings and soaks them for subsequent processing into sausage casings. May clean and flush animal stomachs for use as casings. May adjust tension on machine rollers. May be designated according to function performed as Casing Packer (meat products); Casing Soaker (meat products); or machine tended as Casing-Machine Operator (meat products).

GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.686-014 CONVEYOR LOADER II (meat products)

Guides dehaired hogs from stationary rail to moving chain conveyor. Lifts first stop bar to allow specified number of dehaired hogs to roll along suspended rail to second stop bar and then lowers bar. Lifts second stop bar and pushes specified number of hogs into moving chain conveyor. May remove empty gambrels (hog-suspended attachments) from hogs and place them on return conveyor. May be designated according to type of conveyor loaded as Cooler-Conveyor Loader (meat products).

GOE: 06.04.40 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.686-018 HEAD-MACHINE FEEDER (meat products)

Feeds machines that automatically pull snouts or jawbones from hog heads and split heads to prepare meat for further processing: Cuts jawbone joints and sides and front of snout to prepare parts for pulling process, using knife. Positions and holds head on bed of automatic machines to pull snout or jawbone from head or to split head in half. May trim cheek meat from head with knife subsequent to removal of jawbone.

GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.686-022 SKINNING-MACHINE FEEDER (meat products)

Feeds machine that skins pork pieces, such as fatbacks, jowls, hams, and bacon, preparatory to curing: Turns crank to raise or lower knife according to thickness of meat. Places unskinned piece on conveyor that moves it under machine knife that skins meat. Trims remaining skin fragments with knife. May skin pork by hand, using drawknife.

GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

525.687-010 ANIMAL EVISCERATOR (meat products) alternate titles: gutter

Eviscerates cattle, hogs, lambs, and small animals, performing any combination of following tasks: Slits body cavity of carcass, reaches inside abdominal cavity and cuts membranes holding intestines. Inserts spiral rod in gullet to sever gullet and windpipe from other neck tissue. Cuts bung from intestines and ties intestines, bladder, bung, and gullet to prevent leakage of contents. Pulls intestines from carcass, trims off fat, and dumps them into gut truck or conveyor pan. Cuts out glands, ovaries, sweetbreads, liver, heart, lungs, kidneys, spleen, and spermatic cord, places them on conveyor, in containers, or throws them down chute. Cuts bruises, blemishes, and ragged tissue from carcass. Cuts skin from tail to shoulders to bisect carcass. Severs head from carcass. May wash viscera and carcass, using hose. Patches leaks in intestines, using skewer. May break and bind hoofs of lambs or sheep. May be designated according to function performed as Bruise Trimmer (meat products); Leak Patcher (meat products); Weasand Rodder (meat products); or part of animal eviscerated as Belly Opener (meat products); Bung Dropper (meat products); Bung-Gut Tier (meat products). May be designated: Caul-Fat Puller (meat products); Gut Puller (meat products); Gut Sorter (meat products); Leaf-Fat Scraper (meat products); Rabbit Dresser (meat products).

GOE: 06.04.28 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

525.687-014 CASING SPLITTER (meat products)

Slits cured intestines lengthwise, using knife. Presses intestines flat and stacks them in piles for subsequent production of surgical sutures and violin and tennis racket strings.

GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

525.687-018 CONVEYOR LOADER I (meat products)

Pulls spreads (metal rods inserted in breast of hog halves to separate parts and allow circulation of air) from breast of suspended hog halves preparatory to storage in cooling room. Drops spreads into barrel. Pushes halves along overhead monorail to chain conveyor which carries halves into cooler. May count and record number of halves processed.

GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-022 COOLER ROOM WORKER (meat products)

Stores and prepares dressed meat for further processing or shipment, performing any combination of tasks in cooler room of slaughtering plant: Examines carcasses to determine condition of meat, such as hardness, softness, and oiliness prior to cutting. Records information on inspection tag. Weighs carcass on conveyor scale and records weight on production sheet. Trims excess fat from meat, using knife. Cuts carcasses into quarters, using knife and meat saw. Stamps predetermined grade on meat, using rubber stamp, and attaches date tags. Brands carcasses and meat products with electric iron. Pushes carcasses, or meat cuts, suspended from conveyor, from killing and dressing floor to cooler room or between departments. Separates cuts of meat according to weight, and grade. Pushes truck, filled with pieces of meat, glands, and organs, into cooling room and places them in pans or hangs them on racks. Transports containers of tallow to cooler room and other departments, using handtruck. Carries meat from shipping platform and loads it into delivery truck. Places trolleys on conveyor rails, and cleans and greases rails. Washes floor and containers with hose and shovels fresh sawdust onto floor. May shroud carcasses [SHROUDER (meat products)].

GOE: 06.04.28 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

525.687-026 DRY CURER (meat products) alternate titles: salter

Cures meat products, such as pork, ham, bacon, or casings preparatory to smoking: Pushes sacks of such materials as sugar, sodium nitrate, and salt to curing room, using handtruck or cart. Weighs out specified amounts of materials and mixes them by hand or in mixing machine. Packs and arranges meat in boxes, vats, tierces, or piles, and sprinkles mixture over each layer. Sweeps excess mixture from meat with broom. Rearranges layers after specified time to circulate air around meat. Dips ham hocks in brine solution, sprinkles soda on them, and hangs them on rack for curing. May be designated according to product cured as Belly Packer (meat products); Casing Salter (meat products); Ham-Hock Mopper (meat products); Salt-Bellies Overhauler (meat products).

GOE: 06.04.28 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

525.687-030 GAMBRELER (meat products) alternate titles: hanger-off

Hangs animal carcasses on overhead rail preparatory to dressing: Slits skin to expose tendons in hind ankles, using knife, and inserts *gamb stick* (hooked metal or wooden rod) between tendon and ankle bone to spread legs. Hooks gamb stick to trolley on overhead rail and pushes carcasses to next work station. Cuts flesh between toes of carcass and removes toenails.

GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-034 GAMBRELER HELPER (meat products)

Supplies GAMBRELER (meat products) with *gamb sticks* and moves animal carcasses to dressing stations: Removes gamb sticks from overhead conveyor and stacks them for use by GAMBRELER (meat products). Places trolley (two-wheeled device equipped with hanger to which gamb sticks are hooked) onto overhead conveyor rail so that carcasses can be hung. Positions animal carcasses on table or overhead conveyor. Pushes carcass on overhead rail to various dressing stations. May slit leg tendons on carcass, using knife, to facilitate insertion of gamb sticks.

GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-038 HIDE HANDLER (meat products; oils & grease) alternate titles: hide selector; pelt salter; salt spreader

Salts (cures) and trims hides to prepare hides for storage or shipment, performing any combination of following tasks: Spreads hides, flesh side up, in layers on pile. Shovels and spreads salt over each layer of hides to preserve (cure) hides. Drags cured hides from pile and strikes hide against table to remove caked salt or sweeps salt from hides, using broom. Trims ears, ragged edges, snout skin, tail, and excess flesh from hide, using knife. Folds hides, flesh side inward, and ties cord around bundle. May scan hides for defects, such as holes and brandmarks. May be designated according to duty performed as Hide Salter (meat products; oils & grease); Hide Shaker (meat products; oils & grease); Hide Spreader (meat products).

GOE: 06.04.27 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

525.687-042 HIDE INSPECTOR (meat products) alternate titles: greenhide inspector; hide grader; pelt inspector

Inspects animal hides, pelts, and slunk (unborn animal) skins for blemishes and grades them according to condition, size, and weight: Spreads hides, pelts, or skins on floor and examines or probes them with wooden skewer to detect defects, such as grub holes, cuts, brands, and residual meat and fat to determine grade. Outlines defective areas on diagram. Records grade of hide on tag according to condition, size, and weight, and attaches tag to hide. May trim excess fat from flesh, and cut off snout, ears, and tail, using knife. May place hides in curing vat. May remove pituitary gland from split sheep skull, using knife. May weigh hides on platform scale. May record number and types of grades of hides on production sheets.

GOE: 06.03.02 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

525.687-046 HIDE TRIMMER (meat products; oils & grease) alternate titles: beamer; selector

Trims and cleans animal hides, using knife: Places hide on table and cuts off superfluous fat, flesh, ragged edges, and parts, such as ears, snout, skin, and tail. Spreads hide on floor, skin side up, to prepare them for inspection. May separate hides according to size, weight, and condition. May be designated according to animal hide trimmed as Calfskin Trimmer (meat products); Cow Trimmer (meat products); Pigskin Trimmer (meat products).

GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

525.687-050 NECK SKEWER (meat products) alternate titles: neck pinner

Pushes skewer into neck meat of suspended beef halves to pin flabby meat together after head has been removed. May roll shrouded carcass with handtool to give it a smooth appearance.

GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-054 OFFAL ICER, POULTRY (meat products)

Shovels ice into chicken offal (waste parts) container to cool waste and retard spoilage. Loads and removes containers, using handtruck. May tend baling machine to bale wet feathers.

GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

525.687-058 ORDER RUNNER (meat products)

Prepares smoked meat for packing and further processing, performing any combination of following duties: Removes specified smoked meats from bins and racks, and places them on conveyor leading to packing room. Wipes salt and moisture from smoked hams. Inserts hooks in smoked meats and hangs them on racks for further processing.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-062 PAINTER, DEPILATORY (meat products)

Prepares sheep pelts for removal of wool: Positions pelt on table, hair side down, and brushes depilatory solution on pelt to loosen wool. Folds pelt and hangs it on hook to dry. Loads handtruck with dried pelts and pushes it to WOOL PULLER (leather mfg.; meat products).
GOE: 06.04.27 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

525.687-066 POULTRY BONER (meat products)

Cuts, scrapes and pulls meat from cooked poultry carcasses, using fingers and boning knife: Pulls wings and drumsticks from carcasses. Cuts along each side of breast plate, using knife, and peels meat from breast, using hands. Pulls and scrapes meat from rest of carcass, using knife and hands. Segregates light and dark meat into separate piles. Discards wastes, such as skin, bones, and gristle, into waste containers.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-070 POULTRY DRESSER (agriculture; meat products) alternate titles: tipper

Slaughters and dresses fowl in preparation for marketing, performing any combination of following tasks: Chops off bird's head or slits bird's throat to slaughter bird, using knife. Hangs bird by feet to drain blood. Dips bird into scalding water to loosen feathers. Holds bird against projecting rubber fingers of rotating drum to remove feathers. Cuts bird open, removes viscera, and washes bird and giblets. May pluck chickens by hand. May be designated according to type of fowl dressed as Chicken Dresser (meat products); Turkey Dresser (meat products). May be known according to specific duties performed as Poultry Picker (meat products); Poultry Scalder (meat products).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-074 POULTRY EVISCERATOR (meat products)

Butchers and processes poultry performing any combination of following tasks: Severs legs at first joint, using knife, and drops legs into container. Slits breast skin, removes crop, and places crop on conveyor. Removes oil sack and slits abdominal wall with knife. Grasps carcass with hands, opens abdominal cavity, and pulls out viscera. Separates and washes liver, heart, and viscera and drops them into trays. Cuts around anus to remove remaining viscera and drops it onto conveyor. Holds gizzard over machine rollers to remove skin and drops it into washer. Trims fat from giblet meat with knife and places meat and fat in trays. May be designated according to part of poultry processed as Foot Cutter (meat products); Gizzard-Skin Remover (meat products); or kind of poultry cleaned as Chicken Cleaner (meat products); Turkey Cleaner (meat products).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-078 POULTRY HANGER (meat products)

Shackles and suspends live or slaughtered poultry from conveyor for killing, scalding, removal of feathers or cleaning. Removes live poultry from shipping crates, or picks up slaughtered birds from platforms and chilling vats and hangs them by feet, neck, or wings on shackles of conveyor.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

525.687-082 POULTRY-DRESSING WORKER (meat products)

Weighs, wraps, and prepares poultry for shipment or storage, performing any combination of following tasks: Loads dressed poultry into carts in layers, and shovels ice between layers to prevent spoilage. Pushes filled cart to and from cold storage room. Wraps dressed poultry in paper and packs it in shipping container. Weighs poultry and marks weight on container. May shovel ice into cooling machines. May load trucks. May wrap heads of poultry in paper. May remove crops with knife and sew eviscerated poultry, using needle and twine. May hang or stack cases of dressed poultry in cold storage room.
GOE: 06.04.38 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-086 SHACKLER (meat products) alternate titles: hanger

Chains hind legs of stunned animals, such as cattle, sheep, and hogs, to hoist or conveyor that suspends animals for slaughtering process. May place trolley hooks or *gamb stick* in leg tendon of animal to raise them.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-090 SHACTOR HELPER (meat products)

Lifts head of animal suspended from conveyor to facilitate examining and throat-cutting by official as prescribed by Jewish law. Pushes animal over bleeding trough after cut has been made.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-094 SHAVER (meat products)

Removes hair and dirt from hog carcasses preparatory to further processing or marketing, performing any combination of following tasks: Shaves and scrapes suspended carcasses to remove dirt and hair, using knife and scraper. Pulls off toenails, using hook. Pulls lever to dip suspended hog into resin tank and peels off hardened resin to remove hair. Applies hot resin with brush to remove remaining hair. May remove eyelids, feet, and bruised areas with knife. May slit ankle joints for insertion of gambrel sticks for hanging carcass prior to shaving. May be designated according to specific activity performed as Resin Worker (meat products); Toe Puller (meat products).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.687-098 SINGER (meat products)

Singes hair from carcasses of suspended hogs to prepare them for further processing, using torch. Inserts end of butcher's steel in nostril of hog to remove hair. May be designated according to part of hog singed as Hog-Head Singer (meat products).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

525.687-102 SKIN GRADER (meat products) alternate titles: skin bundler

Transfers hog-back skins from vat to grading table and measures size and length of skin on graduated grading board. Separates skins according to size.
GOE: 06.03.02 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

525.687-106 SLUNK-SKIN CURER (meat products)

Cures slunk (unborn calf) skins in vat of brine solution: Turns valve to fill vat with water and adds salt. Places slunk skins in vat and stirs them with pole to ensure complete curing. Removes cured skins from vat and rolls them into ball or places them in barrel for shipment.
GOE: 06.04.34 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

525.687-110 STEAMER (meat products)

Sprays steam on suspended hog carcasses to remove hair and dirt (scurf).
GOE: 06.04.39 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

525.687-114 STUNNER, ANIMAL (meat products)

Stuns animals, such as cattle, hogs, sheep, or goats, preparatory to slaughtering: Opens gate to allow animal to enter knocking pen or chute. Moves levers to close squeezing mechanism that immobilizes animal. Stuns animal by striking it on forehead with sledgehammer, pneumatic hammer, or cartridge-firing stunning device; by shooting it in head; or by placing electric shocking device against head of animal. Pulls levers to tilt floor of pen and slide animal onto killing floor, or onto conveyors leading to sticking and shackling tables. May stick, shackle, and suspend animals from overhead conveyors or rails [SHACKLER (meat products); STICKER, ANIMAL (meat products)]. May assist in driving animals into knocking pen or chute.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-118 TIER (meat products) alternate titles: roast tier

Rolls and ties cuts of meat to form roasts: Places cut of meat on table and rolls meat into circular shape. Forces skewer threaded with twine through roll of meat at various points to hold roll in place. Knots and cuts twine.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

525.687-122 WASHER, CARCASS (meat products)

Sprays suspended animal carcasses with water hose to wash off blood and dirt and pushes carcass along overhead rail to next work station. May brush or scrape off foreign matter. May shroud carcass [SHROUDER (meat products)].
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

525.687-126 CRAB MEAT PROCESSOR (can. & preserv.) alternate titles: crab picker

Performs any combination of following tasks in processing crab meat for canning, freezing, or packing: Separates claws from crabs, positions claws in metal holder used to facilitate breaking claw shells, and breaks shells of claws and crabs, using knife or metal rod. Picks meat from shells, using knife and fingers. Feels meat for presence of shell and removes shell pieces by hand. Inspects meat for discoloration and discards meat not meeting company requirements. Places meat in containers for further processing. Gathers filled containers of meat, places containers on scale, and adds or removes meat from containers to obtain specified weight. Closes lids of containers, places containers in cartons, and seals cartons, using tape. May disjoint legs and body of large crabs, using power saw, and be known as Sawyer (can. & preserv.). May remove crab meat from smaller ends of leg segments, using pedal-controlled air jet, and be known as Blower (can. & preserv.).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 86

526 COOKING AND BAKING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with treating components or products with heat to affect such characteristics as flavor, color, edibility, consistency, and texture.

526.131-010 BAKERY SUPERVISOR (bakery products)

Supervises and coordinates activities of workers engaged in mixing, dividing, molding, and proofing of dough, and in baking, slicing, and wrapping of bread, pastries, and other bakery products: Examines dough and batter for specified consistency. Reads charts of fermentation room and ovens to verify specified humidity and temperature. Oversees operation of automatic machinery, such as rounding, curling, icing, slicing, and wrapping machines to ensure maintenance of specified quality standards and production schedules. Sets up and adjusts wrapping and slicing machines. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to product as Bread Supervisor (bakery products); Cake Supervisor (bakery products).

GOE: 06.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 78

526.134-010 COOK, MEXICAN FOOD (food prep., nec)

Supervises and coordinates activities of workers engaged in preparing, cooking, portioning, and packaging ready-to-serve Mexican food specialties, such as chili, tamales, enchiladas, and tacos (seasoned chili beans wrapped in tortillas): Requisitions ingredients, such as meat, olives, chili, garlic, and spices from storeroom. Directs activities of workers engaged in feeding and tending grinding and mixing machines, rolling, cutting, and baking tortillas, and stirring and tending food in cooking vessels. Tastes foods to determine that they meet seasoning specifications. Supervises workers engaged in portioning and packaging foods. Frequently performs duties of workers supervised. May be designated according to food cooked as Cook, Chili (food prep., nec); Cook, Enchilada (food prep., nec); Cook, Taco (food prep., nec); Cook, Tamale (food prep., nec); Cook, Tortilla (food prep., nec).
GOE: 06.01.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

526.137-010 POTATO-CHIP-PROCESSING SUPERVISOR (food prep., nec)

Supervises and coordinates activities of workers engaged in peeling and slicing potatoes, frying potato slices, and inspecting fried potato chips: Examines incoming shipments of potatoes to detect rotten and diseased potatoes. Tests sample of potatoes in container of water to determine solidity content (degree of solidity) of potatoes, using Nicholson hydrometer (instrument used to measure specific gravity of a solid). Inserts thermometer into potato to determine temperature of potato shipment. Routes sample of potatoes from each shipment to POTATO-CHIP FRIER (food prep., nec). Rejects or accepts potato shipment based on color and crispness of fried chips, number of defective potatoes in shipment, and solidity content and temperature of potatoes. Inspects potato chips to verify conformance to standards. Inventories and requisitions supplies. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

526.381-010 BAKER (bakery products)

Mixes and bakes ingredients according to recipes to produce breads, pastries, and other baked goods: Measures flour, sugar, shortening, and other ingredients to prepare batters, doughs, fillings, and icings, using scale and graduated containers [DOUGH MIXER (bakery products) 520.685-234]. Dumps ingredients into mixing-machine bowl or steam kettle to mix or cook ingredients according to specifications. Rolls, cuts, and shapes dough to form sweet rolls, piecrust, tarts, cookies, and related products preparatory to baking. Places dough in pans, molds, or on sheets and bakes in oven or on grill. Observes color of products being baked and turns thermostat or other controls to adjust oven temperature. Applies glaze, icing, or other topping to baked goods, using spatula or brush. May specialize in baking one type of product, such as breads, rolls, pies, or cakes. May decorate cakes [CAKE DECORATOR (bakery products) 524.381-010]. May develop new recipes for cakes and icings.
GOE: 06.02.15 STRENGTH: H GED: R3 M2 L2 SVP: 7 DLU: 80

526.381-014 BAKER APPRENTICE (bakery products)

Performs duties as described under APPRENTICE (any industry) Master Title.
GOE: 06.02.15 STRENGTH: H GED: R3 M2 L2 SVP: 7 DLU: 77

526.381-018 BAKER, TEST (grain-feed mills) alternate titles: baker, laboratory; flour tester

Bakes loaves of bread to verify adherence of blended flour to specifications: Weighs equal portions of test flour and standard flour. Mixes flour and other ingredients and makes batch of dough from each flour. Records mixing formula and observes water absorption and kneading qualities of each batch to ensure that flour conforms to specifications. Places loaves in oven. Examines and compares baked loaves for uniformity of color and texture. Weighs each loaf and records weights. May prepare written reports of findings.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

526.381-022 CAKE TESTER (grain-feed mills)

Bakes samples of premixes, such as cake, biscuit, muffin and pancake to test batch prior to packaging: Mixes ingredients and bakes in oven. Examines baked cake for color, texture, and density. Records findings on worksheet and determines if cake passes standards. Issues approval slip for batch meeting standards. Notifies plant chemist if batch does not meet standards. May test ingredients to determine cause of cake failure.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

526.381-026 COOK, KETTLE (beverage; can. & preserv.; grain-feed mills) alternate titles: cook; cooker; cook, pressure

Cooks fruits, vegetables, meats, condiments, or fish products, preparatory to canning or extraction of byproducts, using cooking equipment: Weighs or measures ingredients according to recipe, using scale or graduated container. Loads ingredients into kettle or pressure cooker. Observes thermometer and gauges, turns valve to admit steam to pressure cookers or lights gas burner to heat and cook contents of kettles. Stirs mixture in kettle to blend and prevent scorching of contents, using hand or power-driven paddles. Observes cooking process or tests batch liquor with viscosimeter or hydrometer to verify viscosity or specific gravity and to ascertain completeness of cooking process. Starts pump, opens valve, or tilts or scoops contents of kettle into container to unload cooked contents. May test batch for sugar content, using refractometer. May mix ingredients prior to cooking. May be designated according to material cooked as Co Fish Eggs (can. & preserv.); Cook, Fruit (can. & preserv.); Cook, Jelly (c & preserv.); Cook, Juice (can. & preserv.); Cook, Sauce (can. & preserv Cook, Starch (can. & preserv.). May be designated: Cook, Mayonnaise (ca & preserv.); Cook, Pickled Meat (can. & preserv.); Cook, Preserve (can. preserv.); Cook, Seafood (can. & preserv.); Cook, Spaghetti (can. & preserv Cook, Vegetable (can. & preserv.).
GOE: 06.01.04 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

526.382-010 CONCHE OPERATOR (sugar & conf.) alternate titl conche loader and unloader

Operates conche machine to heat and agitate refined chocolate mass w cocoa butter to enrich color, flavor, and texture: Pumps specified amount chocolate mixture into steam-heated stationary tank or rotary drum. Meters c specified amount of such ingredients as cocoa butter or flavorings. Turns stea valves and adjusts thermostat to heat contents of tank or drum to specified te perature. Pushes lever to start agitators and rotate drum. Pushes levers change rate of agitation, drum rotation, and temperature, following specifi time cycles. Observes and tastes mixture to evaluate conformity to standard a sends sample to laboratory for analysis. Adjusts temperature, agitation spe and timing cycle, and adds ingredients, such as cocoa butter and lecithin, a cording to laboratory findings. Pumps mixture to storage tank.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

526.382-014 CONFECTIONERY COOKER (sugar & conf.)

Controls open-fire or steam-jacketed kettles or batch or continuous pressu cookers to cook candy, gum, or other confectionery ingredients according formula: Weighs or measures ingredients, such as sugar, corn syrup, butter, a gum base, and adds them to cooking utensil. Starts agitators to mix ingredien Turns valve to admit steam and sets pressure gauge and thermostat to cook i gredients at specified temperature. Feels batch for specified consistency a verifies percentage of sugar in syrup, using refractometer or hydrometer. A justs steam valve and heating element accordingly. Opens discharge valve a starts pump or tilts cooker or kettle to pour or dump confection into heate or onto cooling belts or tables. May partially cook batch in open kettle a pump it into pressure cooker. May beat or knead confection to attain specifi consistency, as determined by color and texture. May shovel fondant in remelt kettles and add measured amounts of flavoring and coloring. May b designated according to type of confectionery cooked as Bonbon-Cream Warn er (sugar & conf.); Crystal-Syrup Maker (sugar & conf.); Coconut Cook (sugar & conf.); Fondant Cooker (sugar & conf.); Gum Maker (sugar & conf. or equipment used as Vacuum-Cooker Operator (sugar & conf.). May be de ignated: Icing Maker (sugar & conf.); King Maker (sugar & conf.); Marshmallow Maker (sugar & conf.).
GOE: 06.02.15 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

526.382-018 CONVERTER OPERATOR (grain-feed mills)

Controls converter to change starch into glucose or corn syrup, and tes products to verify purity (specified dextrose content): Turns valves to adm steam and water into converter. Introduces starch into converter so that cookin occurs as starch is added. Detects from sound of cooking process formation paste, and adds acid, as necessary, to reduce viscosity. Closes converter an turns valve to attain specified pressure. Draws off samples, and makes standar iodine and alcohol titration tests. Turns valves to blow syrup into tank whe tests indicate conversion is complete.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

526.382-022 MOLASSES AND CARAMEL OPERATOR (grain-fee mills)

Controls equipment to cook liquid sugar to produce caramel coloring or molasses: Turns valves to fill vessels with liquid sugar and adds specified amoun of salts or caustic solution. Observes thermometers and gauges and turns valve to regulate steam pressure and cooking temperature in vessels. Draws sample of material and performs standard tests to ascertain acid content and specifi gravity, and to verify color, using pH meter, hydrometer, and colorimete Records test results. Turns valves or starts pumps to transfer material to evaporator feed tanks, filter supply tanks, or to storage or tank cars. May tend filter to remove undesirable solids from caramel coloring.
GOE: 06.02.15 STRENGTH: H GED: R3 M2 L3 SVP: 4 DLU: 77

526.382-026 STEAM-OVEN OPERATOR (can. & preserv.) alternate ti tles: parboiler; steamer operator

Operates steam oven to parboil tuna fish loins preparatory to canning: Pushe racks of fish loins into oven chamber, and spaces racks to ensure free ci culation of heat throughout oven. Closes oven doors and turns handwheel t secure and seal doors. Turns valves to admit steam into oven, observes temperature and pressure gauges, and adjusts valve settings to maintain temperatur and pressure for specified time. Turns off heat, opens oven, and pulls racks o fish to cooling area.
GOE: 06.02.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

526.485-010 WORT EXTRACTOR (dairy products) alternate titles: malted-milk masher

Tends kettles and separating machines that cook mash and separate resultin liquid (wort): Assembles piping and starts pump or turns valve to start flow of mash from grinder to kettles. Places time and temperature chart in automati recorder. Starts sweep to stir mash. Turns valve to admit steam into cooking kettle, observes pressure gauge, thermometer, and clock, and cooks mash fo

specified time at specified temperature. Drops iodine on mash sample and observes resulting color to determine if mash is sufficiently cooked. Records time and number of batches run. Turns valves to pump mash through centrifuge and vibrating filter to remove wort. Turns sparging valve to spray water over spent grain to recover remaining wort. Observes ammeter, thermometer, water and mash flowmeters and adjusts valves and pump pressure to prevent overloading of separating machines. Cleans kettles, piping, centrifuges, filters, and clarifiers. May pump spent grain through roller press to remove wort. May operate centrifuge to remove nonsoluble solids from wort. May push control panel button that automatically sets temperature.
GOE: 06.04.15 STRENGTH: H GED: R3 M1 L1 SVP: 3 DLU: 77

526.585-010 OVEN OPERATOR (grain-feed mills) alternate titles: flake-miller helper

Tends ovens and related equipment that toast cereal products, such as flakes, biscuits, and pellets: Lights gas burners and moves control levers to attain specified temperature in ovens. Starts conveyors that move cereal through oven. Inspects and feels cereal emerging from oven to determine whether specified color, blister, and consistency is maintained. Adjusts gas control lever, speed of conveyors, and opens or closes doors on side of oven. Pushes lever to direct unsuitable cereal into feed bin. Records bulk and production rate of product, noting time it takes to fill container, and weight of container.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

526.665-010 COOKER, PROCESS CHEESE (dairy products) alternate titles: cook blender

Tends vat to cook blended cheeses or cheese curd and other ingredients to make process cheese: Starts agitator and signals for cheese to be dropped into vat. Turns steam valve and observes thermometer to heat vat to specified temperature. Measures or weighs out prescribed ingredients, such as sodium citrate, disodium phosphate, and cream, using scale and measuring glass. Dumps ingredients into vat. Cooks mixture at specified temperature for specified time or observes consistency of mixture to determine when it is cooked to specifications. Pulls lever to drain cheese into hopper or bucket. May pump cheese through viscolizer to achieve finer texture. May mix unheated cheese or cheese curd and other ingredients to make cold pack cheese or creamed cheese and be designated Cream-Cheese Maker (dairy products).
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

526.665-014 KETTLE TENDER (beverage)

Tends brewing kettle that boils wort and hops preparatory to making beer: Opens valve and starts pump to transfer wort from filter tank to brewing kettle, or signals MASH-FILTER OPERATOR (beverage) to pump wort from filter tank into brewing kettle. Turns valve to admit steam into kettle steam jacket to boil wort. Dumps hops into boiling wort. Observes dials and gauges and adjusts controls to maintain specified pressure and temperature. Tests sample of wort from kettle for specific gravity, using hydrometer. Signals HOP STRAINER (beverage) or opens valve and starts pump to transfer unfiltered beer into hop-straining tank. Tallies and records barrels of wort processed. Cleans and rinses kettle, using high-pressure water hose.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

526.682-010 BATTER SCALER (bakery products) alternate titles: batter depositor; depositing-machine operator; divider; scaling-machine operator

Operates machine that deposits measured amount of batter into baking pans as pans pass on conveyor. Dumps batter from mixing bowl into machine hopper, using hoist. Attaches depositing dies to machine and tightens, using wrench. Adjusts gauge on hopper to measure specified amount of batter. Weighs filled pans on balance scale to ensure conformity to standards. Removes filled pans from machine and places on racks. May be designated according to type of batter used as Cake-Batter Scaler (bakery products).
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

526.682-014 COOK, DOG-AND-CAT FOOD (meat products)

Controls battery of steam-jacketed kettles that cook ingredients for preparation of dog and cat foods: Dumps or pours premeasured amounts of water and ground meat into kettles. Starts agitator to mix ingredients. Opens steam valve and observes thermometer reading to heat contents and to maintain specified temperature. Dumps specified amounts of seasoning, chemical solution, and grain into mixture at designated intervals. Opens valves to allow mixtures to circulate through other kettles. Observes mixture for required viscosity and closes valves upon completion of cooking cycle. Starts pumps to transfer contents from kettles to tank of filling machines.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

526.682-018 COOK, SYRUP MAKER (beverage)

Operates equipment to mix and cook ingredients to produce flavoring extracts and syrup: Scans formula sheet to determine proportion of ingredients required, such as sugar, water, and flavoring. Pushes buttons to admit automatically metered ingredients into blending tank and to activate mixer. Observes mixture to ensure that color and consistency conform to company specifications. Pushes buttons to pump mixture to cooking kettle. Opens valves to admit steam into pressure cooker to invert sugar, eliminate air, and sterilize syrup. Observes gauges and adjusts valves to regulate temperature and pressure while cooking mixture. Presses switch to activate paddles to stir mixture and prevent scorching. Tests batch to determine viscosity or specific gravity and sugar content, using viscometer, hydrometer, and refractometer. Presses switches to activate equipment to filter impurities and pump syrup into holding tanks. Maintains production records.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

526.682-022 DOUGHNUT-MACHINE OPERATOR (bakery products) alternate titles: cruller maker, machine; doughnut-cooking-machine operator; fried-cake maker

Operates machine that shapes and fries doughnuts: Slides block of ejectors (cutters) into machine and tightens them, using wingnuts. Turns switch to heat frying tank to desired temperature. Mixes prepared ingredients with specified amount of water in mixing machine to form batter. Dumps batter into doughnut machine hopper, using chain hoist. Turns and adjusts valves to control air pressure for ejecting batter into frying tank and to regulate size of doughnuts, temperature and feed of grease, and speed of conveyor. Starts machine and observes color and verifies weight of doughnuts to ensure conformity to standards. Dismantles doughnut ejectors for cleaning. May melt and temper chocolate [CHOCOLATE TEMPERER (bakery products; grain-feed mills)].
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

526.682-026 MALT ROASTER (beverage)

Controls gas-fired ovens to roast barley malt: Observes temperature gauges, and turns gas valves and ignition switches to start and heat ovens to specified temperatures. Opens slide gate of hopper to dump malt into oven. Sets timer to control roasting cycle. Shuts off ovens and opens water valves to drench roasted malt at end of cycle. Dumps malt in cooler tubs and pushes to cleaning machine. Starts conveyor that lifts and dumps malt into cleaning machine. Opens gate and valves to drop malt into storage bins for bagging.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

526.682-034 RETORT OPERATOR (can. & preserv.)

Controls retort chamber (steam pressure cooker) to cook canned foods according to specifications: Pushes trucks or lowers baskets using hoist, or presses buttons to start conveyorized flow of canned foods into chamber of retort. Closes retort door or lid, and turns wheels or moves levers to seal chamber. Observes dials and thermometers, and turns valves to admit steam to retort, and control temperature, pressure, and cooking time. Turns valves to release steam and admit cooling water into chamber to prevent overcooking at end of cooking cycle. May open retort and move basket of canned food to cooling trough, using hoist. May record items such as retort number, can size and grade designation, cooking time, and number of pounds pressure on canning report.
GOE: 06.02.15 STRENGTH: H GED: R3 M1 L1 SVP: 5 DLU: 77

526.684-010 DOUGHNUT MAKER (bakery products) alternate titles: baker, doughnut; cruller maker

Mixes, forms, and fries dough to produce doughnuts, according to work order: Dumps prepared doughnut mix into mixing-machine bowl, adds water and dehydrated eggs, and starts mixer. Turns switch on heating unit of frying tank and sets thermostat at specified temperature. Dumps dough from mixing bowl into hopper of doughnut cutter. Sets lever to control amount of dough that doughnut cutter will portion to frying tank. Moves cutter machine back and forth over frying tank and depresses trigger to eject individual doughnuts into hot cooking oil. Turns doughnuts over in tank, using stick. Lifts wire tray of fried doughnuts from tank and places it in glazing tank. Slides trough containing glazing syrup over doughnuts. May glaze doughnuts, using hand dipper. May roll dough with rolling pin and form doughnuts with hand cutter. May lower wire tray of uncooked doughnuts into fryer, using hooks. May tend automatic equipment that mixes, cuts, and fries doughnuts. May weigh cut dough and fried doughnuts to verify weight specifications, and adjust controls of equipment accordingly when weights vary from standards.
GOE: 06.02.28 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 78

526.684-014 LUMPIA WRAPPER MAKER (food prep., nec)

Mixes and fries dough to prepare *lumpia* wrappers in establishment processing Philippine food specialties: Mixes premeasured ingredients by hand to prepare dough. Kneads dough to required consistency. Places griddle on stove to heat griddle. Shapes and spreads, by hand, specified amount of dough on heated griddle to cook and form lumpia wrappers. Removes cooked lumpia wrappers from griddle, using fingers, and stores wrappers for further processing or packaging. Periodically returns dough to freezer to maintain dough consistency. Cleans equipment and work area.
GOE: 05.10.08 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 86

526.685-010 COOK (meat products)

Tends equipment that bakes, boils, and deep-fat fries meats, such as ham, beef, liver, pork, sausage, tongues, and tripe, to prepare them for further processing: Turns valves to admit water or cooking oil into vat, and steam to heating vat. Observes gauge and turns valves to maintain specified temperature in vat. Loads vat with mesh bags, wire cages, metal molds, and sealed cans containing uncooked meat. Lifts cuts of meat from truck and loads them into vat. Suspends link sausages on holding fixtures in vat. Turns valve to drain vat, removes cooked meats, and places them on racks or in carts. Spreads sugar or honey over top of hams and places hams and other meat items in baking oven. May garnish hams with cherries and pineapple slices. May add gelatin and other ingredients, such as olives, pickles, and pimientos, to cooked meat and mix them by hand or in machine. Pours mixture into molds to form gelatinized meat loaf. May stuff meat loaves into plastic casings, using horn (funnel-shaped tube). May cook products, such as chili, souse, and head cheese. May remove bones and fat from cooked meat, using knife. May grind meat, using grinding machine.

GOE: 06.04.15 STRENGTH: H GED: R3 M1 L1 SVP: 3 DLU: 77

526.685-014 COOK, FRY, DEEP FAT (can. & preserv.; hotel & rest.)
Tends deep-fat cookers to fry meats, vegetables, or fish in cooking oil: Empties containers or opens valves to fill cookers with oil. Sets thermostat to heat oil to specified temperature. Empties containers of meat, vegetable, or fish into metal basket and immerses basket into vat manually or by hoist. Sets timer. Observes color at end of frying time to determine conformity to standards and extends frying time accordingly. Removes basket from cooker, drains it, and dumps contents onto tray. May dip foods into batter or dye before frying. May specialize in a particular food product for canning or freezing or may fry variety of foods for immediate consumption.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

526.685-018 COOK, VACUUM KETTLE (can. & preserv.)
Tends vacuum cooker and open kettle to cook fruit and berries preparatory to making jams and jellies: Observes thermometer, turns rheostat and steam valve, or pushes switch or lights burner to heat vacuum cooker and open kettle to specified temperature. Turns valve to transfer contents of kettle into vacuum cooker. Observes refractometer on vacuum cooker to determine sugar content and adds ingredients according to formula. Places container under discharge outlet of distillation jacket of cooker to reclaim esters. Opens valve or starts pump to transfer contents of vacuum cooker to holding tank or filling machine.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

526.685-022 COOKER (grain-feed mills)
Tends steam-heated pressure cookers to cook cracked and tempered grain for further processing into cereal products: Presses button to load first cooker with measured amount of grain and liquid flavor. Clamps lid of cooker in place, using wrench. Moves dials and turns valves to attain specified temperature and pressure in cooker. Removes lid of cooker and dumps cooked grain onto conveyor after determining that grain has reached specified color and consistency. Records cooking time and number of batches prepared. May start automatic equipment that admits steam, rotates cooker, and stops cooker after specified time.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

526.685-026 CORN POPPER (sugar & conf.) alternate titles: popcorn maker; popped-corn oven attendant
Tends one or more gas ovens to pop corn: Lights ovens and starts rotating cone- or drum-shaped perforated oven. Dumps measured amount of corn into oven. Places container at discharge end of oven to receive popcorn or starts conveyor to carry corn through screen to remove unpopped kernels. Moves lever to reverse rotation of oven and to dump unpopped kernels into container beneath oven. When popping corn by wet method, pushes level to release measured amount of oil into unpopped corn in stationary oven. May prepare syrup and coat popcorn to make popcorn candy [POPCORN-CANDY MAKER (sugar & conf.)].
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

526.685-030 OVEN TENDER (bakery products)
Tends stationary or rotary hearth oven that bakes bread, pastries, and other bakery products: Places pans of unbaked goods on blade of long-handled paddle (peel). Opens oven door and slides loaded peel into oven. Jerks paddle from under pans to deposit them on hearth. Observes gauges and turns valves to regulate heat and humidity of oven. Notes color of products during baking to ensure uniformity of finished products. Removes baked goods from oven with peel, and places them on tiered racks. Flips switch to position hearth for loading and unloading when tending rotary hearth oven. May place bagels into kettle of boiling water, remove bagels from kettle, using ladle, and sprinkle bagels with seasoning prior to placing bagels in oven. May be designated according to type of oven tended or product baked as Oven Tender, Bagels (bakery products); Peel Oven Tender (bakery products); Rotary-Peel Oven Tender (bakery products).
GOE: 06.04.15 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 79

526.685-034 PAN GREASER, MACHINE (bakery products)
Tends machine that automatically coats inside surfaces of baking pans with grease: Places container of grease alongside machine and inserts suction pipe into container. Starts machine. Adjusts gauge to regulate spray of grease. Removes greased pans from machine conveyor and places pans on second conveyor for transfer to batter depositing machine, or stacks pans on racks. May be designated according to type of pans greased as Bread-Pan Greaser (bakery products); Cake-Pan Greaser (bakery products).
GOE: 06.04.21 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

526.685-038 PIE MAKER, MACHINE (bakery products)
Performs any combination of following duties on pie-machine conveyor line: Loads dough into hopper of pie-dough scaling machine. Turns hand lever to adjust scaling cylinder of machine to produce lumps of dough of prescribed size. Removes lumps of dough deposited from scaling machine and places them in dough-rolling-machine hopper. Turns hand lever to adjust rollers of machine to produce dough disks of desired thickness, catches dough emerging from first set of rollers, and drops dough into second set of rollers. Catches dough emerging from rolling machine and places it in piepan as it moves on conveyor. Dumps pie filling from container into hopper of filling machine, using hoist. Observes pies being filled and adjusts mechanism to regulate feed of filling or fills pies by hand. Catches dough emerging from rolling machine and places it over filled pies. Perforates pie covers to identify filling, using hand stamp. Inserts pan containing pie in pie-crimping machine and depresses pedal to crimp and seal perimeter of pie. Trims excess dough from pie with knife. May be designated according to phase of operation performed as Pie Bottomer (bakery products); Pie-Crimping-Machine Operator (bakery products); Pie-Dough Roller (bakery products); Pie Filler (bakery products); Pie Topper (bakery products).
GOE: 06.04.15 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

526.685-042 POPCORN-CANDY MAKER (sugar & conf.)
Tends equipment to cook and mix syrup with popcorn, forming popcorn candy: Weighs, measures, adds, stirs, and cooks ingredients, such as corn syrup, butter, and water in open-fire cooker or steam-jacketed kettle according to formula and specified procedure. Dumps popped corn into bowl of mixing machine or other container. Pours syrup over corn and starts agitator to mix corn and syrup for specified time or until coating is complete. May tend molding press to form popcorn novelties or shapes, such as balls or fritters (disks).
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

526.685-046 POTATO-CHIP FRIER (food prep., nec) alternate titles: cooker, chip; potato-chip cooker machine
Tends machine that washes, slices, fries, and salts potatoes to make potato chips: Opens valve to pump preheated cooking oil into cooking vats. Fills salt hopper. Adjusts burner controls to maintain specified temperature in cooking vats. Turns valves to rinse potato slices, and moves levers to control rate of flow of potato slices into cooking vats. Stirs potato slices to ensure uniform cooking, using paddle or by use of automatic reciprocating rakes. Observes color of cooked potato chips as they emerge onto conveyors from cooking vats. Replaces worn blades on slicing heads, using handtools. May cook potatoes by lowering wire basket of sliced potatoes into vat of cooking oil.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

526.685-050 POTATO-PANCAKE FRIER (food prep., nec)
Tends machine that deep-fries potato pancakes in oil, preparatory to freezing and packaging: Dumps potato batter into hopper of machine that automatically forms and fries pancakes. Turns valve to add specified amount of frying oil into machine. Inspects fried pancakes on conveyor to verify specified size and color.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

526.685-054 PRETZEL COOKER (bakery products)
Tends oven that automatically cooks, salts, bakes, and dries pretzels: Lights oven and sets thermostats of cooker, oven, and kiln at specified temperature. Dumps specified amount of salt, soda, and water into hoppers of oven. Turns valve to sprinkle salt and to allow soda solution to drain continuously into cooking pit of oven. Observes progress of uncooked pretzels moving on conveyor into oven, and straightens pretzels, using wire hooked rod. Tastes baked pretzels, observes their color, and adjusts speed of conveyor or temperature of cooker, oven, and kiln to ensure pretzels conform to color and taste standards. May place unbaked pretzels on oven conveyor by inverting boards loaded with pretzels.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

526.685-058 THERMOSCREW OPERATOR (can. & preserv.)
Tends machine that precooks meat products preparatory to canning: Starts machines and conveyors, and loads meat into grinder to be ground and fed into cooker. Observes temperature gauge and color of meat during cooking process, and turns valve or adjusts rheostat to maintain specified temperature for prescribed cooking time. Turns valves to permit flow of cooking fluid into machine and from machine into filtering tanks.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

526.685-062 TRIPE COOKER (meat products)
Tends equipment that cooks tripe to tenderize it preparatory to further processing: Dumps tripe into scalding vat to remove outer skin. Turns valve to admit water and steam into cooking vat and transfers tripe into vat by hand or using pitchfork. Observes gauge and regulates valves to maintain specified temperature in vat. Removes cooked tripe from vat after specified length of time and places it in trays or on racks for chilling. May cook tongue.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

526.685-066 WAFER-MACHINE OPERATOR (bakery products) alternate titles: waffle baker; waffle-machine operator
Tends machines that automatically deposit and bake batter in molds to form wafers: Lights gas burners to heat baking molds. Fills hopper of machine with batter. Starts machine and turns setscrew to regulate amount of batter deposited in mold. Turns thermostat to adjust temperature of baking molds. Observes color of baked wafers being ejected onto conveyor to detect defects. May be designated according to type of wafer made as Sugar-Wafer-Machine Operator (bakery products). May tend machine that also rolls batter into shape of cones prior to baking and be designated Cone Baker, Machine (bakery products).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

526.685-070 OVEN OPERATOR, AUTOMATIC (bakery products) alternate titles: baker operator, automatic
Tends automatic reel or conveyor type oven that bakes bread, pastries, and other bakery products: Reads work order to determine quantity and type products to be baked. Turns dials and valves to set operation speed of conveyor, baking time, and temperature controls of baking unit. Presses buttons to start

equipment, and observes gauges to maintain heat according to specifications. Observes filled baking pans entering oven to determine whether pans are filled to standard, spacing between pans is sufficient to prevent pans jamming together, and speed of pans entering oven is specified speed to control baking time of product in oven. Observes color of baking product to detect burning or over baking and to verify uniformity of finished products. Adjusts controls according to procedure or notifies supervisor when conditions require equipment adjustments. May load and unload ovens. May be designated according to type of oven controlled as Conveyorized Oven Tender (bakery products); Reel Oven Tender (bakery products). May tend mixing machine and auxiliary equipment that automatically mixes, shapes, and bakes batter to form fortune cookies and be designated Fortune Cookie Maker (bakery products).
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 78

526.686-010 BAKER HELPER (bakery products)
Performs any combination of following tasks in production of baked goods: Moves and distributes bakery supplies and products in and around production area of bakery, using handtrucks, dollies, troughs, and rack trucks. Weighs and measures ingredients, such as sugar, flour, yeast, syrup, and dough. Lifts and dumps containers of materials to help load and unload machines, bins, hoppers, racks, and ovens. Feeds lumps or sheets of dough into hopper or between rolls of machine. Cleans equipment, using brushes, cleanser, and water. Greases, lines, or dusts pans or boards preparatory to receiving product for baking. May cut, turn, or twist dough into specified products and fill baking pans with dough. May observe and rearrange baked products on conveyor before products enter slicing machine. May tend equipment that dumps baked bread from pans onto conveyor for further processing. May push racks of bakery products into designated areas to await further processing. May be designated according to worker assisted as Batter-Mixer Helper (bakery products); or according to machine operator assisted as Cracker-And-Cookie-Machine Operator Helper (bakery products); Doughnut-Machine-Operator Helper (bakery products); Cookie-Mixer Helper (bakery products); Dividing-Machine-Operator Helper (bakery products); Dough-Mixer Helper (bakery products); Ingredient-Scaler Helper (bakery products).
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 86

526.687-010 POTATO-CHIP SORTER (food prep., nec)
Observes potato chips on conveyor and removes chips that are burned, discolored, or broken.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

526.687-014 STARCHMAKER (sugar & conf.) alternate titles: candy-starch-mold printer; printer
Makes starch molds in which gum or jelly candy is formed, using manual press: Fills trays with starch and levels filled trays, using straightedge implement. Slides molding plate into press and secures it with thumbscrews. Pushes starch-filled tray under molding plate and pulls lever to press plate into starch, forming mold cavities. May tend machine that automatically empties molded candy from trays, refills them with starch, and reprints mold cavities [MOLDING-MACHINE-OPERATOR HELPER (sugar & conf.)].
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529 OCCUPATIONS IN PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with processing food, tobacco, and related products.

529.130-010 SUPERVISOR, CANDY (sugar & conf.)
Supervises and coordinates activities of workers engaged in cooking, forming, coating, wrapping, and packing candy: Trains workers in setting up and operating machines, such as depositors, enrobers, and cutters. Inspects candy to verify specified size, shape, solidification, gloss, and weight. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to operation as Supervisor, Enrobing (sugar & conf.); or type of candy as Supervisor, Hard Candy (sugar & conf.).
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.130-014 SUPERVISOR, CHOCOLATE-AND-COCOA PROCESSING (sugar & conf.)
Supervises and coordinates activities of workers engaged in producing and packaging chocolate and cocoa products: Designates quantities and types of beans to clean, roast, blend, alkalize, and grind to make chocolate liquor. Indicates time sequence, quantity, type of chocolate liquor, and formulas to use to make cocoa and coatings. Trains workers in setting up and adjusting machines and equipment to achieve standards and correct malfunctions. Reviews laboratory reports on quality control of products in process, such as shell content of nibs, fat content of cocoa powder, viscosity of coatings, and moisture content of alkalized beans. Reads thermometers and pressure gauges on storage tanks and pipelines to verify specified temperature of liquids to prevent solidification. Oversees roasting of cocoa beans for adherence to flavor, taste, moisture content, and color standards. Inspects nibs for shell content and fineness of cracking. Inspects grinding of nibs for specified fineness of chocolate liquor. Tests liquor for fineness. Directs mixing, refining, tempering, conching, and molding operations to make sweet chocolate and coatings. Inspects products for specified viscosity, texture, color, and taste. Directs workers engaged in insect and rodent control and in cleaning production and storage areas. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

529.130-018 SUPERVISOR, COFFEE (food prep., nec)
Supervises and coordinates activities of workers engaged in grinding, blending, roasting, and packaging of coffee. Requisitions supplies. Sets up machines, such as grinders and filling machines. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.130-022 SUPERVISOR, FILTRATION (sugar & conf.)
Supervises and coordinates activities of workers engaged in filtering, clarifying, and storing sugar liquors, slurries, and sweetwaters. Observes automatic recording devices to verify specified temperature, density and alkalinity of liquors, slurries, and sweetwaters. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.130-026 SUPERVISOR, NUT PROCESSING (can. & preserv.)
Supervises and coordinates activites of workers engaged in cracking, sorting, blanching, cutting, grinding, roasting, packing, and shipping nuts: Sets up and repairs nut-processing machines, such as nut-cracking machine, meat grading machine, or nut-cutting machines. Observes operation of machines to detect malfunctions or to detect worn parts. Inspects nuts to verify conformance with plant standards. May install and service showcases in retail stores to display nut products. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

529.130-030 SUPERVISOR, PULP HOUSE (sugar & conf.)
Supervises and coordinates activities of pulp-house workers engaged in processing sugar-beet pulp into cattle fodder: Consults with SUPERVISOR, BEET END (sugar & conf.) to ascertain tonnage of beets being processed, and schedules number of driers and presses required to handle pulp. Adjusts automatic presses to press water from pulp. Moves controls to start equipment, such as elevators, scrolls, and conveyors, and to regulate flow of molasses into mingler scroll. Observes gauges and automatic recorders to verify specified temperatures in driers. Directs workers in clearing blockades and cleaning spillages. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

529.130-034 SUPERVISOR, REFINING (sugar & conf.) alternate titles: sugar-end supervisor
Supervises and coordinates activities of workers engaged in storing and distributing liquors and syrups, and in boiling, crystalizing, and drying sugar. Reads records and gauges to verify that equipment is operating according to standards. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.130-038 SUPERVISOR, SOFT SUGAR (sugar & conf.)
Supervises and coordinates activities of workers engaged in centrifuging, screening, distributing, and packing brown sugar: Sets timing on centrifuge cycles to control color of product. Orders packing machine operators to set up machines. Turns valves and opens gates to distribute sugar to packing station. Directs workers in washing equipment when changing color of pack. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

529.130-042 SUPERVISOR, WHITE SUGAR (sugar & conf.) alternate titles: centrifugal supervisor
Supervises and coordinates activities of workers engaged in centrifuging, granulating, and storing sugar: Sets timing controls on centrifuges for spinning, washing, and predrying cycles. Observes operation of equipment and temperature and flowmeters to verify specified flow of product between stations. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.131-010 CELLAR SUPERVISOR (beverage)
Supervises and coordinates activities of workers engaged in operation of winery cellars: Directs workers in crushing grapes, fermenting and fortifying juice, finishing and aging wine, operating portable pumps to transfer wine, and racking wine (filtering). Inspects fermentation tanks for cleanliness and operation of valves and other accessories. Orders filling of tanks and adds yeast culture to must in tanks to promote fermentation. Turns valves to circulate ferment through heat exchangers or other devices to maintain vintage at specified temperature. Observes gauges and records readings. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 8 DLU: 77

529.131-014 SUPERVISOR, DAIRY PROCESSING (dairy products)
Supervises and coordinates activities of workers engaged in producing dairy products, such as milk, butter, cheese, and evaporated milk in liquid, solid, or powdered form: Directs workers in receiving and testing milk and in operations, such as pasteurizing, separating, evaporating, drying, cooling, and storing dairy products. Feels, tastes, and smells cheese samples to determine types of cheeses required for specified brand. Examines samples of evaporated milk, orders changes in cooking temperature, and adds measured amounts of calcium or phosphate to milk to obtain specified texture and viscosity. May add specified

amount of lactic ferment cultures to pasteurized milk to develop starter for sour dairy products, such as buttermilk, cheese, or sour cream. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to type of product as Butter Production Supervisor (dairy products); Cheese Production Supervisor (dairy products); Instant-Powder Supervisor (dairy products); or according to process as Pasteurizing Supervisor (dairy products).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.132-010 CUSTOM-FEED-MILL OPERATOR (grain-feed mills)
Supervises and coordinates activities of workers in operation of feed mill that grinds grain and mixes feed to customer's specifications. May operate grinders and auxiliary equipment to grind and mix feed. May compute charges and collect payment. May purchase supplies and equipment and keep financial records. May manage commercial feed store in conjunction with mill to sell grain, stock feed, fertilizer, and other products to retail trade. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.12.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-014 PLANT SUPERVISOR (grain-feed mills)
Supervises and coordinates activities of workers engaged in drying, shelling, grading, and bagging hybrid seed corn: Regulates valves to maintain specified temperature of drying room. Periodically inspects and samples corn during various stages of processing for accuracy of operation, and for germination and purity. Tags and stores bagged grain. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-018 SUPERVISOR, BEET END (sugar & conf.)
Supervises and coordinates activities of workers engaged in extracting sugar juice from sugar beets, processing juice into sugar liquor, and processing beet pulp into cattle fodder: Reads production schedules and beet delivery reports and assigns workers to such duties as fluming and washing beets, controlling equipment to slice and extract juice from beets, and processing juice through carbonation, filtration, and evaporation stages to obtain standard sugar liquor. Reads automatic recording devices and gauges and operating logs at various stations to ascertain that juice is being extracted and processed into standard sugar liquor, according to prescribed procedures, and that standard liquor meets density and concentration requirements. Prepares production and employee time reports. Directs workers in repairing and overhauling processing equipment during slack periods. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.132-022 SUPERVISOR, BOTTLE-HOUSE CLEANERS (beverage)
Supervises and coordinates activities of workers engaged in cleaning bottle house, and bottling equipment and machines: Trains workers in operation of equipment. Observes draining, dismantling, and cleaning of machines, such as bottle washing, can dumping, case unloading, filling, labeling, and pasteurizing machines. Examines machines for conformance to cleanliness criteria and standards. Reads gauges and thermometers on pasteurizing and bottle washing machines to verify specified operating temperatures. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.132-026 SUPERVISOR, BREW HOUSE (beverage)
Supervises and coordinates activities of workers in brewhouse of malt liquor establishment: Trains workers in operation of equipment. Inspects and evaluates milling, mashing, brewing, and cooling operations to determine conformance to laboratory report specifications and established production procedures. Observes time, temperature, and pressure recording charts on machines and compares readings with work order specifications. Conducts iodine tests of mash and specific gravity tests of malt to determine completeness of mashing operations. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 77

529.132-030 SUPERVISOR, CEREAL (grain-feed mills)
Supervises and coordinates activities of workers engaged in processing and packaging grains for cereal or animal feed products, according to knowledge of plant operations, processing machinery, and equipment: Directs experienced workers to instruct new workers in operation of grinders, cookers, driers, flaking rolls, ovens, frosting and packaging equipment. Evaluates performance of new workers for understanding of equipment and duties. Visually and tactually inspects grain mill products in process for conformance to plant standards. Reads laboratory tests results to verify specified moisture content of products. Directs workers to supply packaging lines with cartons, shipping cases, and other packaging materials. Investigates and directs repair of malfunctioning equipment based on knowledge of equipment and process. Maintains time and production records. May perform processing tasks in worker's absence. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L4 SVP: 7 DLU: 77

529.132-034 SUPERVISOR, CIGAR-MAKING MACHINE (tobacco)
Supervises and coordinates activities of workers engaged in operating cigar-making machines: Weighs and measures cigars to ensure conformance to standards. Adjusts machines and notifies MAINTENANCE MECHANIC (any industry) of machine malfunction. Trains workers in machine operation. Perform other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-038 SUPERVISOR, COOK ROOM (can. & preserv.)
Supervises and coordinates activities of workers engaged in brinin syruping, lidding, or capping containers of food products. Controls temperatu of atmospheric (conveyor-type) cooking machines. Performs duties as describ under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-042 SUPERVISOR, DRIED YEAST (food prep., nec)
Supervises and coordinates activities of workers engaged in extruding, dr ing, milling, inspecting, and packaging dried yeast: Observes temperature ar humidity controls on conveyor belt-type drier for adherence to specification Reviews laboratory reports and inspects dried and milled yeast for specifie fineness. Examines packaged yeast at various stages and directs workers to a just malfunctioning machines. Inspects equipment and machine to ensure adhe ence to sanitary specifications. Trains workers in machine and equipment ope ations. Performs other duties as described under SUPERVISOR (any industr Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

529.132-046 SUPERVISOR, DRY-STARCH (grain-feed mills)
Supervises and coordinates activities of workers engaged in treating ra starch suspensions with chemical solutions, such as acids and alkalies, and operating pumps, heating units, agitators, filters, shakers, centrifugal separator and driers to produce variety of dry-starch products: Reads thermometers, i strument-control meters, dials, and gauges to verify specified processing proc dures. Operates equipment, adjusting valves, levers, and switches to contr flow of product, temperatures, moisture content, and other characteristic Trains workers in operation of equipment. Performs other duties as describ under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-050 SUPERVISOR, FEED HOUSE (grain-feed mills)
Supervises and coordinates activities of workers engaged in grinding and dr ing byproducts of starch (bran and gluten) in preparation of stock food: Trai workers in operation of equipment. Examines machinery, valves, pumps, an conveyors to detect malfunctions resulting in leakage, spillage, overflow, an choke-up. Reads laboratory test reports to verify specified chemical characteri tics, such as protein content of product. Performs other duties as describ under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 77

529.132-054 SUPERVISOR, FEED MILL (grain-feed mills)
Supervises and coordinates activities of workers engaged in grinding, scree ing, and mixing stock and poultry feed from grain and other ingredients accor ing to specifications: Directs grinding of feed materials, such as grain, alfalf and corn cobs in hammer mills, or attrition mills, or roll grinders and mixin of ground feed with malt, mash, molasses, salt, soda, vitamins, and other ingre dients, according to formula. Oversees cooking, cooling, and pelletizing of fee May supervise packing of feed and storage and shipment of feed products. Pe forms other duties as described under SUPERVISOR (any industry) Mast Title. May be designated according to type of feed as Poultry Feed Supervis (grain-feed mills).
GOE: 06.01.01 STRENGTH: L GED: R3 M3 L3 SVP: 7 DLU: 77

529.132-058 SUPERVISOR, FERMENTING CELLARS (beverage)
Supervises and coordinates activities of workers engaged in fermenting liqu wort: Moves controls of refrigeration equipment to maintain specified tempera tures in cellar. Observes time, temperature, and pressure recording charts o fermenting tanks and compares with job order specifications. Directs worke in yeast pitching, fermenting, and pumping operations to ensure conformanc to specified production procedures. May test specific gravity of wort. Perform other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-062 SUPERVISOR, GRAIN AND YEAST PLANTS (beverage)
Supervises and coordinates activities of workers engaged in drying, baggin and loading spent brew mash grains and surplus fermenting yeast: Coordinate drying, bagging, and car-loading operations and requisitions materials to mee daily production schedules. Measures moisture content of grain and yeast, usin hygrometer. Moves controls of drying machine to regulate moisture content o grains and yeast. Marks or specifies railroad cars to be loaded with bagged o bulk grain. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.132-066 SUPERVISOR, LIQUID YEAST (food prep., nec)
Supervises and coordinates activities of workers engaged in production o yeast cream used in manufacture of bakers' yeast and food yeast: Trains workers in machine and equipment operation. Observes production operations an reviews laboratory results of liquid yeast. Inspects equipment to ensure adher ence to sanitary specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.132-070 SUPERVISOR, MALTED MILK (dairy products)
Supervises workers engaged in making, bottling, and packaging malted mil powder: Assigns production runs to operators of mashing, evaporating, drying

blending, filling, and casing machines. Tours department to observe machines, production records, and automatic recording charts for specified temperature, pressure, liquid level, and machine setting. Trains workers in operation of masher, centrifuge, separator, evaporator, drum drier, blender, filler and packager machines, and auger, roller, or vacuum conveyor systems. Examines materials and transporting equipment of suppliers for unsanitary conditions to prevent processing of substandard powder. May rerun laboratory test for such quality factors as moisture or sediment in malted milk powder. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-074 SUPERVISOR, MILL HOUSE (grain-feed mills)
Supervises and coordinates activities of workers engaged in processing grain for use in manufacturing starch, sugar, and feed products: Directs workers in softening and expanding grain kernels in acid solution (steep-water), grinding grain in mills, and in separating elements, such as starch and gluten from milled grain. Feels milled grain to determine fineness of grind. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.132-078 SUPERVISOR, NUTRITIONAL YEAST (food prep., nec)
Supervises and coordinates activities of workers engaged in pasteurizing and drying yeast cream and milling and packing yeast for use as food: Examines dried yeast sheet for color and thickness and milled yeast for fineness. Trains workers in equipment and machine operation and adjustment. Inspects equipment and machines to ensure adherence to sanitary specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

529.132-082 SUPERVISOR, SOAKERS (beverage)
Supervises and coordinates activities of workers engaged in washing beer bottles: Trains workers in operation of machines. Examines soaked bottles for cleanliness. Reads gauges to verify temperature of soda solution in machines, and directs workers to regulate strength of solution. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

529.132-086 SUPERVISOR, STEFFEN HOUSE (sugar & conf.)
Supervises and coordinates activities of workers in processing sugar-beet molasses, and in operating kilns to produce lime and carbon-dioxide gas used for carbonation of raw sugar-beet juice. Directs workers in diluting molasses, mixing lime with solution, and recovering hot and cold saccharate cake and filtrate from filter presses. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

529.132-090 SUPERVISOR, SUGAR HOUSE (grain-feed mills)
Supervises and coordinates activities of workers engaged in cooling, crystalizing, separating, and drying sugar liquors to produce granular sugar: Reads instrument-control meters, thermometers, and gauges to verify specified processing procedures. Examines valves, pumps, and conveyors to detect malfunctions resulting in leakage, spillage, overflow, or choke-up. Trains workers in operation of equipment. Supervises workers engaged in production of caramel color, molasses, and other related products from liquid sugar. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 77

529.132-094 SUPERVISOR, SUGAR REFINERY (grain-feed mills)
Supervises and coordinates activities of workers engaged in converting liquid starch to liquid sugars: Trains workers in operation of equipment. Reads instrument dials in control room of automatic plant, and thermometers, meters, and gauges at stations in plant to verify specified processing procedures. Examines valves, pumps, and conveyors to detect malfunctions resulting in leakage, spillage, overflow, or choke-up. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 77

529.132-098 SUPERVISOR, TANK STORAGE (beverage) alternate titles: supervisor, finishing department
Supervises and coordinates activities of workers engaged in processing, storing, and aging beer: Inspects beer for clarity and color to determine need for aging, filtering, blending, carbonating, and storing. Moves controls of refrigeration equipment to maintain specified temperatures in tank-storage department. May conduct alcoholic content, carbonization, and specific gravity tests to determine conformance of beer to laboratory and production specifications, using hydrometer and other test apparatus. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.02.07 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 77

529.132-102 SUPERVISOR, TEA AND SPICE (food prep., nec)
Supervises and coordinates activities of workers engaged in receiving, processing, packaging, and storing dry food products, tea, and spices used in food preparations, such as gelatin desserts, soups, and liquid extracts: Mixes ingredients for liquid extracts and flavoring, following formula. Requisitions materials. Trains workers in machine operations. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.132-106 SUPERVISOR, WASH HOUSE (beverage)
Supervises and coordinates activities of workers engaged in washing, pitching, and repairing metal beer kegs and barrels: Trains workers in machine operation. Adjusts keg washing and pitching machines. Observes temperature gauges and turns steam valve to maintain specified operating temperatures and speeds. Examines cleaned and pitched kegs for conformance to specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.132-110 SUPERVISOR (food prep., nec)
Supervises and coordinates activities of workers engaged in mixing, pressing, and drying macaroni products: Confers with supervisor of previous shift and management to determine production needs, such as changes of press dies, production rate increases, or changes in dryer temperatures as recommended by quality control personnel. Informs workers of production changes, and monitors control panels of mixing, pressing, and drying machines and equipment to determine whether control settings meet company specifications. Observes products in various stages of process to determine whether products meet requirements for size, color, texture, and smoothness; and reads temperature and humidity charts, drying chamber charts, and entries in daily reports to determine compliance with company standards. Informs workers involved with specific steps in process to bring products into compliance with standards. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to process supervised as Supervisor, Long Goods (food prep., nec); Supervisor, Short Goods (food prep., nec).
GOE: 06.02.01 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 86

529.135-010 COOKING, CASING, AND DRYING SUPERVISOR (tobacco)
Supervises and coordinates activities of workers engaged in cooking *casing fluid*, and casing and drying tobacco for further processing into chewing tobacco. Trains new workers in machine operation. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.135-014 SUPERVISOR, CURED-MEAT PACKING (meat products)
Supervises and coordinates activities of workers engaged in wrapping and packing sausages, sliced bacon, sides of bacon, and ham: Trains workers in tending skin-peeling machine and other equipment. Directs workers on bacon line in activities, such as molding sides of bacon, slicing and weighing bacon, and inserting bacon into packages. Directs workers on sausage line in activities, such as peeling sausages (removing skins) by hand or machine, inserting sausages in containers, hand or machine wrapping sausage container, and packaging containers of sausage in cartons for shipment. Inspects cured meats for specified color and texture to verify quality of product. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

529.137-010 PREPARATION SUPERVISOR (can. & preserv.)
Supervises and coordinates activities of workers engaged in receiving, sorting, preparing, and processing food products, such as fruits, vegetables, and fish, for canning or freezing. Performs duties as described under SUPERVISOR (any industry) Master Title. May be designated according to type of preserving process as Preparation Supervisor, Canning (can. & preserv.); Preparation Supervisor, Freezing (can. & preserv.).
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 78

529.137-014 SANITARIAN (any industry) alternate titles: sanitation supervisor
Supervises and coordinates activities of workers engaged in duties concerned with sanitation programs in food processing establishment: Inspects products and equipment for conformity to federal and state sanitation laws and plant standards. Directs food handlers and production personnel in sanitary and pest-control procedures. Directs cleaning of equipment and work areas. Inspects premises for unsanitary practices and conditions. Examines incoming shipments of food ingredients for foreign matter, such as insects, poisons, or dirt, and gathers samples of ingredients for laboratory analysis. Confers with management and production personnel on sanitation problems, and recommends changes in equipment, plant layout, lighting, ventilation, or work practices to improve sanitation standards and purity of product. Compiles required reports regarding regular inspections, sanitation violations, and steps taken to resolve deficiencies. Routes reports to designated plant personnel. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to type of establishment as Supervisor, Bakery Sanitation (bakery products); Supervisor, Dairy Sanitation (dairy products).
GOE: 11.10.03 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 79

529.137-018 SUGAR-REPROCESS OPERATOR, HEAD (sugar & conf.)
Supervises and coordinates activities of workers engaged in reprocessing damaged refined sugars: Directs workers opening bales and cases and inspecting cartons and pockets. Oversees repacking of undamaged containers in cases and bales, and ensures specified code-marks are stamped on containers. Directs workers dumping damaged sugar into barrels and hoppers and conveying containers to remelt hoppers. Directs worker tending metal-detecting equipment that locates and removes metallic objects from damaged sugar. Oversees return of bulk sugar from trucks to remelt station. Keeps records, such as amounts of sugar processed, labor costs, and inventories.
GOE: 06.02.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

529.137-022 SUPERINTENDENT, GRAIN ELEVATOR (beverage; grain-feed mills)
Supervises and coordinates activities of workers engaged in unloading, loading, storing, cleaning, and blending of grain for milling and shipment: Inspects

sample of grain from incoming shipment to verify variety of grain with invoice and route to designated storage bin according to variety and protein content of grain. Prepares switching orders for guidance of train crews in moving grain cars to unloading pits according to mill requirements. Observes unloading and transportation of grain by bucket elevators and conveyors to storage tanks. Inspects grain to determine cleaning requirements and directs processing of grain to prepare grain for milling. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

529.137-026 SUPERVISOR (tobacco)
Supervises and coordinates activities of workers engaged in making or packing cigarettes or cigars: Inspects cigars, cigarettes, and filters to determine that length, circumference, firmness, printing of brand name, and gluing are according to specifications. Observes machine operations to detect defective operation and product. Schedules and coordinates work activities within cigar or cigarette making or packing lines and with other supervisors to maintain established production standards. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to department supervised as Supervisor, Cigar Processing (tobacco); Supervisor, Cigarette-Filter Making Department (tobacco); Supervisor, Cigarette-Making Department (tobacco); Supervisor, Cigarette-Packing Department (tobacco).
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 78

529.137-030 SUPERVISOR (oils & grease)
Supervises and coordinates activities of workers engaged in processing oils, vegetables, and nuts, such as cottonseed, linseed, peanuts, palm kernels, and castor beans, used in manufacture of margarine, shortening, and other edible oils: Observes gauges and determines cooking time and temperature, according to equipment used and material to be processed, to ensure maintenance of quality and quantity standards. Calculates, according to formula, adjustments to be made if laboratory analysis shows batch to be substandard. Maintains production records and prepares reports for cost and production departments. Patrols department to observe automatic equipment, such as hullers, separators, and crushing rolls, to ensure efficient operation. May determine scrap reprocessing operations, according to condition of scrap, quality control specifications, and legal requirements. May weigh random samples of margarine prints, using scale, to verify weight of prints against specifications and examine packaged product to verify brand names and code numbers against order. May direct workers in refining and bleaching edible oils and be known as Refinery Supervisor (oils & grease). May direct workers in packaging operations and be known as Packaging Supervisor (oils & grease). May perform other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.137-034 SUPERVISOR, CIGAR TOBACCO PROCESSING (tobacco)
Supervises and coordinates activities of workers engaged in receiving, sorting, sizing, conditioning, *mulling*, and packing tobacco used in manufacture of cigars. Examines tobacco to determine suitability of leaves for processing into wrapper or filler. Trains new workers in equipment operation and work processes. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 6 DLU: 77

529.137-038 SUPERVISOR, CURING ROOM (tobacco)
Supervises and coordinates activities of workers engaged in blending, aging, and fermenting tobacco strips and stems in production of cigars, chewing tobacco, or snuff: Reads production schedules for information, such as quantity of stems, and strip tobacco, amounts of water and *casing fluid*, and aging time specified. Computes amount of tobacco strips and stems required to maintain production. Analyzes thermometer readings of piles of tobacco to determine stages of fermentation, and schedules turning or transfer of tobacco cures. Coordinates receipt of tobacco from supplier and transfer to drying department. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.137-042 SUPERVISOR, EGG PROCESSING (can. & preserv.; wholesale tr.) alternate titles: egg room supervisor
Supervises and coordinates activities of workers engaged in processing eggs for shipment and storage: Schedules processing according to type of eggs ordered, delivery date, availability of eggs, and capacity of machines. Informs MATERIAL HANDLERS (any industry) of number of cases to pack. Verifies counting of eggs, preparation of receipts, and movement of eggs, according to company standards. Directs workers in government and company sanitation regulations. Inspects appearance and work methods of EGG CANDLER (any industry) and EGG BREAKER (any industry) for conformance to sanitation regulations. Repairs or adjusts machinery. Performs other duties as defined under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

529.137-046 SUPERVISOR, FRUIT GRADING (wholesale tr.)
Supervises and coordinates activities of workers engaged in grading fruits: Trains employees in grading methods, detection of defective or improperly colored fruit, and other factors affecting standards. Assigns workers to positions at grading belt. Observes workers to correct discrepancies and ensure that graded fruit meets specified standards. May interview and recommend hiring of new employees. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.03.02 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

529.137-050 SUPERVISOR, MAPLE PRODUCTS (food prep., nec)
Supervises and coordinates activities of workers engaged in boiling, stirring, molding, and packing maple products, such as maple sugar and syrup. Inspects product for conformance to prescribed standards of purity and appearance. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

529.137-054 SUPERVISOR, READY-MIXED FOOD PREPARATION (food prep., nec)
Supervises and coordinates activities of workers engaged in processing ready-mixed food preparations: Requisitions ingredients from warehouse and prescribes mixing sequence. Inspects ingredients and product to ensure conformance to company specifications and ensures that samples are taken of each batch mixed for quality control purposes. Maintains record of ingredients used and batches mixed. Trains new workers. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

529.137-058 SUPERVISOR, SYRUP SHED (sugar & conf.)
Supervises and coordinates activities of workers engaged in blending edible sugar syrups, cleaning storage facilities and vehicle tanks, and filtering, pasteurizing and pumping syrups into tank trucks and railroad tank cars. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

529.137-062 SUPERVISOR, SPECIALTY FOOD PRODUCTS (can. & preserv.; meat products)
Supervises and coordinates activities of workers engaged in mixing, cooking, molding, and packaging speciality food products, such as frankfurters, chili, sausage, and fish roe: Reads production schedule to determine work procedures, supplies to be requisitioned, personnel requirements, and processing equipment to be used. Assigns workers to work stations and issues instructions concerning formulas to follow and work procedures. Coordinates flow of work between work stations. Keeps production and timecard records. Performs other duties as described under SUPERVISOR (any industry) Master Title. May supervise workers engaged in processing fish roe and be designated Supervisor, Roe Processing (can. & preserv.).
GOE: 05.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 78

529.137-066 SUPERVISOR, WHIPPED TOPPING (dairy products)
Supervises and coordinates activities of workers engaged in processing and packing whipped topping: Observes operations of equipment, such as versators, colloid mills, pasteurizers, cooling tanks and homogenizers to verify conformance of whipped topping with quality and quantity standards. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.137-070 SUPERVISOR, YARD (beverage)
Supervises and coordinates activities of workers engaged in blocking and icing loaded freight cars, manufacturing ice, and cleaning brewery yards: Trains workers. Maintains specified amount of ice in storage. Spots cars for workers to ice and block. Directs movement of freight cars in yard. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L2 SVP: 8 DLU: 77

529.137-074 SUPERVISOR, INSPECTION (sugar & conf.)
Supervises and coordinates activities of workers engaged in inspecting chewing gum to ensure product conformance to processing standards: Reads production schedule and assigns duties to workers. Observes inspection process to detect defective operations. Reviews inspection reports to determine type and cause of product deviations from company standards. Periodically reads instructions on batch cards to ensure ingredients meet formula specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

529.137-078 SUPERVISOR, INSTANT POTATO PROCESSING (food prep., nec)
Supervises and coordinates activities of workers engaged in cooking, blending, screening, and drying instant potato granules: Reviews shift specifications with supervisor to determine production goals, additives to be mixed with potato granules, and schedule for cleaning machinery. Reviews shift logs to ascertain production delays encountered, such as machinery breakdown, production lines involved, and action taken. Completes shift reports, and submits reports to management. Instructs workers to fill storage tanks with instant potato granules according to type of granules produced, type of additives mixed with granules, and tank capacity. Approves employee requests for vacation and forwards leave forms to personnel department. Requests personnel department to provide substitute workers when regular workers are absent. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

529.137-082 SUPERVISOR, PROCESSING (sugar & conf.)
Supervises and coordinates activities of workers engaged in processing raw ingredients into chewing gum: Coordinates washing, melting, blending, mixing, and cooking of ingredients; rolling and scoring of gum into sheets; and coating of sheets with powdered sugar. Trains new workers in operation of equipment.

Maintains inventory records and requisitions ingredients as necessary to meet production schedules. Inspects and weighs ingredients to maintain establishment standards. Confers with SUPERVISOR (sugar & conf.) 920.137-018 to coordinate activities between departments. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 86

529.167-010 FRUIT COORDINATOR (can. & preserv.) alternate titles: metal mover

Coordinates flow of materials through departments of citrus-fruit processing plant. Observes processing procedures and informs workers to speed up, slow down, or temporarily cease operations to maintain even flow of fruit through plant.
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

529.281-010 TASTER (food prep., nec)

Tastes samples of food or beverages to determine palatability of product or to prepare blending formulas: Cooks or brews small lots of beverages or other food products and tastes product to determine grade, approximate market value, or acceptability to consumer tastes. Writes blending formulas for guidance of workers who prepare food products in commercial quantities. May purchase food products. May be designated according to product tasted as Coffee Taster (food prep., nec); Tea Taster (food prep., nec).
GOE: 06.01.05 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

529.361-010 ALMOND-PASTE MIXER (sugar & conf.) alternate titles: marzipan maker

Mixes and cooks blanched, ground, and refined almonds with sugar solution to make marzipan (almond paste) for candy centers. Dumps ingredients into steam-jacketed rotating cooker. Transfers cooked batch to water-cooled kettle. May operate refining machine to reduce particle size of cooked batch.
GOE: 06.01.04 STRENGTH: M GED: R4 M2 L3 SVP: 8 DLU: 77

529.361-014 CANDY MAKER (sugar & conf.) alternate titles: batch maker; boiler; confectioner; cook, candy

Mixes and cooks candy ingredients by following, modifying, or formulating recipes to produce product of specified flavor, texture, and color: Cooks ingredients [CONFECTIONERY COOKER (sugar & conf.)] at specified temperatures in open-fire or steam-jacketed kettles or in batch or continuous pressure cookers. Casts candy by hand, using molds and funnel, or tends machine that casts candy in starch or rubber molds [DEPOSITING-MACHINE OPERATOR (sugar & conf.)]. Spreads candy onto cooling and heating slabs. Kneads and machine-pulls candy [CANDY PULLER (sugar & conf.)]. Spins or rolls candy into strips ready for cutting [SPINNER (sugar & conf.)]. Examines, feels, and tastes product to evaluate color, texture, and flavor. Adds ingredients or modifies cooking and forming operations as needed. May direct CANDY-MAKER HELPERS (sugar & conf.). May be designated according to type of candy produced as Caramel-Candy Maker (sugar & conf.); Coconut-Candy Maker (sugar & conf.); Fudge-Candy Maker (sugar & conf.); Hard-Candy Maker (sugar & conf.); Nougat-Candy Maker (sugar & conf.); Taffy-Candy Maker (sugar & conf.).
GOE: 06.02.28 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

529.361-018 CHEESEMAKER (dairy products) alternate titles: cheese cooker

Cooks milk and specified ingredients to make cheese, according to formula: Pasteurizes and separates milk to obtain prescribed butterfat content. Turns valves to fill vat with milk and heat milk to specified temperature. Dumps measured amounts of dye and starter into milk. Starts agitator to mix ingredients. Tests sample of milk for acidity and allows agitator to mix ingredients until specified level of acidity is reached. Dumps and mixes measured amount of rennet into milk. Stops agitator to allow milk to coagulate into curd. Pulls curd knives through curd or separates curd with hand scoop to release whey. Observes thermometer, adjusts steam valve, and starts agitator to stir and cook curd at prescribed temperature for specified time. Squeezes and stretches sample of curd with fingers and extends cooking time to achieve desired firmness or texture. Gives directions to CHEESEMAKER HELPER (dairy products) or other workers to make curd, drain whey from curd, add ingredients, such as seasonings, or mold, pack, cut, pile, mill, dump, and press curd into specified shapes. Directs other workers who immerse cheese in brine or roll cheese in dry salt, pierce or smear cheese with cultured wash to develop mold growth, and place or turn cheese blocks on shelves to cure cheese. Tastes, smells, feels, and observes sample plug of cheese for quality. Records amounts of ingredients used, test results, and time cycles. Makes variations in time cycles and ingredients used for succeeding batches. Dumps specified culture into milk or whey in pasteurizer to make bulk starter. May be required to hold state cheesemaker's license.
GOE: 06.01.04 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

529.362-010 BUTTERMAKER (dairy products)

Controls equipment to make grades of butter by either of following methods: (1) Butter churn method: Connects sanitary pipe between cream storage vat and churn. Starts pump to convey sterile solution through equipment and to admit measured amount of pasteurized cream into churn, and starts churn. Observes separation of buttermilk from butter and pumps buttermilk from churn. Opens churn and sprays butter with chlorinated water to remove residue buttermilk. Compares butter with color chart and adds coloring to meet specifications. Tests butter for moisture, salt content, and consistency, using testing apparatus, and achieves specified consistency by adding or removing water. Examines, smells, and tastes butter to grade it according to prescribed standard. (2) Butter chilling method: Pasteurizes and separates cream to obtain butter oil, and tests butter oil in standardizing vat for butter fat, moisture, salt content, and acidity, using testing apparatus. Adds water, alkali, and coloring to butter oil to achieve specified grade, and starts agitator to mix ingredients. Turns valves and observes gauges to regulate temperature and flow of water, refrigerant, and butter oil through chilling vat. Smells, tastes, and feels sample to grade butter emerging from chilling vat. May be designated according to equipment operated as Butter-Chilling Equipment Operator (dairy products); Butter Churner (dairy products).
GOE: 06.02.15 STRENGTH: H GED: R3 M3 L2 SVP: 6 DLU: 77

529.362-014 DRY-STARCH OPERATOR, AUTOMATIC (grain-feed mills)

Controls equipment that produces dry starch products from raw starch, and tests product for adherence to specifications: Dumps bags of chemicals into mixing tanks, and turns valves to admit fluids to prepare slurries for treating raw starch. Regulates material flow, and starts and controls pumps, heaters, agitators, shakers, filters, driers, and related equipment, following standard procedures. Monitors gauges and recording instruments to ensure standard operating conditions. Directs other workers in operating equipment in event of malfunction. Obtains samples of product at various stages of process to test for viscosity, acidity, and specific gravity, using viscometer, pH meter, and hydrometer. Records instrument readings and other data on daily log.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 7 DLU: 77

529.367-010 CIGARETTE-AND-FILTER CHIEF INSPECTOR (tobacco)

Examines plain or filter-tipped cigarettes or filters to ensure that quality of product conforms to standards: Inspects cigarettes or filters produced to detect imperfections, such as loose ends, stems, stemholes, defective glue lines, and defectively attached filters. Examines cigarettes, attached filters, and filters rejected by CIGARETTE-MAKING-MACHINE CATCHER (tobacco) and CIGARETTE INSPECTOR (tobacco) and discards inferior products. Notifies CIGARETTE-MAKING-MACHINE OPERATOR (tobacco) of deviations from standards. Records number of cigarettes found with defects and compiles summary production sheets. Verifies and totals figures posted by CIGARETTE INSPECTOR (tobacco).
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.367-014 HOGSHEAD INSPECTOR (tobacco)

Examines hogsheads and bales of tobacco after ordering process to determine whether temperature and quality of tobacco conform to standards: Places thermometer in tobacco and records temperature of each lot. Inspects tobacco for damage. Removes damaged tobacco, weighs, and records amount damaged. Notifies supervisor when temperature or condition of tobacco does not meet standards. Verifies weight of hogsheads and bales against checksheet.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

529.367-018 QUALITY-CONTROL INSPECTOR (bakery products)

Weighs and tests cookies and crackers for conformance to quality and weight standards: Gathers random packages of cookies or crackers from each conveyor line and weighs packages on platform scale to verify weight specifications. Adds crumbled crackers to chemical solution to ascertain level of acidity or alkalinity, using pH meter, or compares color of solution with color chart. Records weight of crackers or cookies, and places crumbs in drier. Turns on drying unit for specified time to remove moisture from crumbs. Weighs dried crumbs to ascertain moisture content. Records results of tests in record book and reports variations from weight standards. May verify weight of individual packages during packing process.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

529.367-022 QUALITY-CONTROL TECHNICIAN (beverage)

Compiles taste preference data on whiskeys for use by laboratory personnel as aid to developing improved methods of producing and storing distilled liquors: Requests samples of whiskey from warehouse or bottling workers for tasting and laboratory analysis, according to brand of whiskey and serial numbers of barrels from which samples are to be taken. Records proof and weight of whiskey and date whiskey was placed in storage. Schedules designated persons to taste various brands of standard quality whiskey and brand to be bottled. Fills glasses with whiskeys for tasting by panel members. Prepares reports indicating number of like and unlike comparisons, date sample tasting was made, brand of whiskey, and serial numbers of barrels from which sample was taken, and submits information to laboratory. Attaches labels to bottles of whiskey samples and routes bottles to laboratory for analysis.
GOE: 05.09.02 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

529.367-026 ROUGH-RICE GRADER (grain-feed mills)

Grades unhulled rice visually as it is unloaded from freight cars or trucks, and directs workers in storage of rice according to grade: Obtains samples from each carload or truckload, using probe. Examines samples and determines grade of each load according to amount of damaged grains and grass seed content. Directs workers in conveying rice to storage bins to ensure that each grade is stored separately. Records amount and grade of rice received.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.367-030 YIELD-LOSS INSPECTOR (grain-feed mills)

Inspects operating condition of machinery and equipment used in manufacture of stock feed, starch, sugar, and liquid sugar products to detect potential

sources for loss of product: Examines valves, pipe connections, conveyors, pumps, and equipment assemblies for potential malfunction and cause of leakage, spillage, overflow, and excessive dusting. Takes samples from process streams, such as wash water and waste disposal lines, to laboratory for test of product content. Prepares periodic reports of inspection findings. Participates in special studies, such as grain moisture and sewer sampling surveys, reviews new sampling methods and procedures, and makes suggestions to improve yield loss inspection procedures.
GOE: 06.03.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

529.367-034 QUALITY CONTROL INSPECTOR (sugar & conf.)
Inspects bagging, storage, and shipping facilities for conformance to company sanitation and safety standards in beet sugar refinery: Monitors indicator lights and weighs randomly selected sugar bags from packaging line conveyor to verify accuracy of automatic weighing equipment. Pulls lever to adjust fill rate of equipment when sample bags are over or under specified weight. Inspects boxcars for cleanliness and to ascertain valves and hatches are closed and sealed. Obtains sugar samples from bulk car for laboratory analysis, using probe. Inspects warehouse areas to detect unsafe or unsanitary conditions, such as lubricants on walkways and cracks in storage bins. Informs designated person of conditions requiring immediate repair, such as unsanitary condition of boxcars and warehouse areas. Completes reports that indicate condition of boxcars, warehouse area, and incoming shipments of brown sugar and starch.
GOE: 06.03.01 STRENGTH: H GED: R3 M2 L2 SVP: 7 DLU: 86

529.381-010 COMPOUNDER, FLAVORINGS (beverage)
Compounds natural or synthetic flavorings from liquid and solid ingredients, according to formula: Selects prescribed ingredients and measures or weighs ingredients, using English or metric measures and balance scales. Determines mixing sequence, in kettles, placed on floor scales, or in weigh tanks, based on knowledge of temperature effects, and solubility and miscibility properties of specific ingredients. Stirs mixture with paddle or uses agitator. Homogenizes material to prevent separation of substances, using homogenizing device. Maintains record of batches prepared.
GOE: 06.02.28 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 77

529.382-010 BUTTERMAKER, CONTINUOUS CHURN (dairy products)
Operates continuous churn to produce butter of specified grade and quality, and performs quality control tests: Starts agitator of salt injector and fills tank of injector with salt solution. Turns valve control and starts pump to move cream from storage tank to churn. Presses switches to start beater and extruders of churn, and adjusts controls while monitoring gauge and ammeter to regulate churn speed. Connects salt injector tube to extruder of churn and starts salt injector pump. Raises or lowers nozzle to adjust height of buttermilk drainpipe to control level of buttermilk in extruder, using wrenches. Observes butter granules dropping from beater section to ensure that beater is operating efficiently. Removes sample of butter from discharge of churn and performs standardized tests for moisture, butterfat, and color content. Tastes butter to detect undesirable flavors and to ensure required salt level. Rubs sample of butter between thumb and finger to determine if texture meets specifications. Turns control knobs to adjust speed of beater, speed of salt pump, height of buttermilk discharge pipe, or adds vegetable color to salt solution to ensure butter meets specifications. Observes and listens to churn to detect possible malfunctions, such as leaks or plugging, and reports malfunctions or undesirable taste to supervisor. Mixes salt and water, according to formula, to maintain stock of solution. Records production and test data on record sheet.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

529.382-014 CHOCOLATE-PRODUCTION-MACHINE OPERATOR (sugar & conf.) alternate titles: general utility machine operator
Operates any of following machines and equipment to relieve regular operators engaged in processing cocoa beans into chocolate liquor and in producing cocoa powder and sweet chocolate, according to formula: Controls roaster that roasts cocoa beans to develop specified color and flavor and reduces moisture content of beans [COCOA-BEAN ROASTER (sugar & conf.) I; COCOA-BEAN ROASTER (sugar & conf.) II]. Tends mill to grind nibs (cracked cocoa beans) into liquid chocolate of specified fineness [LIQUOR-GRINDING-MILL OPERATOR (sugar & conf.)]. Tends hydraulic press to extract cocoa butter from chocolate liquor, and operates cocoa room machinery and equipment to grind and pulverize cocoa cakes into cocoa powder [COCOA-PRESS OPERATOR (sugar & conf.); COCOA-ROOM OPERATOR (sugar & conf.)]. Mixes ingredients, such as chocolate liquor, sugar, and powdered milk to make sweet chocolate [MIXER OPERATOR (sugar & conf.)]. Operates refining machine to grind chocolate paste to specified consistency [REFINING-MACHINE OPERATOR (sugar & conf.)]. Operates tempering equipment to control temperature of chocolate in cooling process before molding [CHOCOLATE TEMPERER (bakery products; grain-feed mills)]. May tend molding machines, pressure cookers, and dryers. May assist in supervising and training production line workers.
GOE: 06.02.15 STRENGTH: H GED: R4 M3 L3 SVP: 6 DLU: 77

529.382-018 DAIRY-PROCESSING-EQUIPMENT OPERATOR (dairy products)
Operates continuous flow or vat-type equipment to process milk, cream, and other dairy products, following specified methods and formulas: Connects pipes between vats and processing equipment. Assembles fittings, valves, bowls, plates, disks, impeller shaft, and other parts to equipment with wrench to prepare for operation. Turns valves to pump sterilizing solution and rinse water through pipes and equipment and spray vats with atomizer. Starts pumps and equipment, observes temperature and pressure gauges, and opens valves on continuous flow equipment to force milk through centrifuge to separate cream from milk, through homogenizer to produce specified emulsion, and through filter to remove sediment. Turns valves to admit steam and water into pipes to pasteurize milk and to circulate refrigerant through coils to cool milk. Starts pump and agitator, observes pressure and temperature gauges, and opens valves on vat equipment to fill, stir, and steam-heat milk in vat. Pumps or pours specified amounts of liquid or powder ingredients, such as skim milk, lactic culture, stabilizer, neutralizer, and vitamins into vat to make dairy products, such as buttermilk, chocolate milk, or ice cream mix. Tests product for acidity at various stages of processing. Records specified time, temperature, pressure, and volume readings. May be designated according to process performed as Byproducts Maker (dairy products); Clarifier Operator (dairy products); Cooler Operator (dairy products); Homogenizer Operator (dairy products); Mix Maker (dairy products); Pasteurizer Operator (dairy products); Separator Operator (dairy products). May be required to hold license from State Board of Health or local government unit.
GOE: 06.02.15 STRENGTH: H GED: R4 M2 L3 SVP: 5 DLU: 77

529.382-022 GELATIN MAKER, UTILITY (chemical)
Performs any combination of following duties to relieve other workers in producing gelatin or glue from animal stock (skins, splits, fleshings, and trimmings): Tends equipment to wash animal stock used to make gelatin and glue [WASH-MILL OPERATOR (chemical)] and lime vats to loosen hair and open pores of stock [LIMER (chemical; leather mfg.)]. Tends equipment to cook stock for broth [COOK (chemical)], and operates evaporator to dehydrate broth to concentrate gelatin contents [EVAPORATOR OPERATOR (chemical) I]. Tends press to filter impurities from gelatin or glue [FILTER-PRESS OPERATOR (any industry)]. Tends equipment to spread gelatin or glue into sheets for drying [SPREADING-MACHINE OPERATOR (chemical)] and equipment that grinds, weighs, and packages gelatin or glue [GLUE-MILL OPERATOR (chemical)].
GOE: 06.02.18 STRENGTH: M GED: R3 M1 L2 SVP: 6 DLU: 77

529.382-026 HYDROGENATION OPERATOR (oils & grease) alternate titles: clarifier
Controls equipment to process base oils used in manufacture of margarine and shortening: Starts pumps to move premeasured batches of refined oils or fats into converter vessel. Turns valves to adjust rate of flow of hydrogen, steam, air, and water into converter, and weighs and adds specified amounts of catalytic agents and other chemicals to harden batch of oils or fats, as required. Tests samples of batch to ensure that hardness of product is in accordance with specifications, using refractometer. Pumps hardened oils through filter press to remove catalyst and attaches lines to transfer filtered oil to blending vessel. Starts pump to add specified amounts of blending oils to blending vessel and turns valves to heat and blend oils for required amount of time. Observes temperature and pressure gauges, and turns valves to make adjustment when necessary. Pumps finished oils through filter press to holding tank. May be designated according to equipment controlled as Blender (oils & grease); Hardener (oils & grease).
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

529.382-030 IRISH-MOSS OPERATOR (chemical) alternate titles: drying-machine operator; weed-cooking operator
Operates centrifugal separator, pressure cooker, drum drier, hammer mill, and air separator to process Irish moss (carrageen) into powdered stabilizer used in food processing: Pumps boiled mixture from holding tank into centrifugal separator and starts machine to separate moss from mixture. Pumps mixture from centrifuge to pressure cooker. Weighs out and adds specified amounts of powdered ingredients. Turns steam valve and observes pressure gauges on pressure cooker to cook mixture for specified time. Pumps mixture to drier and turns valve to heat drier to prescribed temperature and reduce product to solid form. Starts screw conveyor to carry mixture out of drier through hammer mill and air separator to pulverize and deosit product in containers for storage. May draw sample of product and perform tests, using meters, or submit sample for testing.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L1 SVP: 5 DLU: 77

529.385-010 NOODLE MAKER (food prep., nec)
Tends series of machines that mix, knead, roll, and cut dough to make noodles: Weighs and measures specified ingredients according to standard formulas, and dumps them into mixing machine. Moves lever to empty mixed ingredients into kneading machine. Feeds kneaded dough into rolling machine that forms dough into sheet and winds sheet into roll. Turns knob to regulate roller clearance and dusts rolled sheet with cornstarch. Inserts end of sheet into feed rollers of cutting machine that slits sheet into strands. Slides rod under emerging strands to drape strands over rod. Pulls lever to cut strands to specified length and hangs filled rod on rack. Pushes rack into drying room, and sets thermostat to specified temperature. Feels and observes consistency of product throughout operation to control quality and processing time. May cut noodles into packaging lengths, using knife. May weigh and wrap noodles in cellophane or pack them in cartons.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

529.387-010 CHEESE GRADER (dairy products)
Evaluates and grades body, texture, flavor, and color of natural cheese: Pushes trier into cheese to obtain sample plug. Smells and tastes cheese for

odor, acidity, and flavor. Examines cheese with fingers to determine firmness and texture. Observes cheese for color, shape, size, finish, and surface blemishes. Records weight, grade, and identifying data. Must hold state or federal license. May buy cheese and assist with production problems.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.387-014 CIGARETTE TESTER (tobacco) alternate titles: tester operator

Tests cigarettes and cellophane wrappers to ensure that products conform to company standards, according to following methods: (1) Feeds sample from cigarette-making machine into hopper of weight recorder that tallies weight of each cigarette and totals number of each weight. Computes average weight of cigarettes in sample and compares average weight with standard to determine deviations. (2) Slits cigarette paper, dumps tobacco into container, and places container in electric moisture meter to obtain moisture content [MOISTURE-METER OPERATOR (tobacco) 529.687-162]. (3) Weighs tobacco from specified number of cigarettes and places tobacco in agitator equipped with series of screens to separate shreds according to size. Weighs separate tobacco and determines percentage of each size of shreds in single cigarette, using conversion table. (4) Removes cellophane wrapper from cigarette pack and tests resistance to air by slipping wrapper over suction device of instrument that draws air through wrapper and indicates amount of airflow. Records test finding, date, and machine number from which samples were taken.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

529.387-018 FRUIT-BUYING GRADER (can. & preserv.; wholesale tr.) alternate titles: fruit inspector; platform inspector

Examines, sorts, and grades sample fruit from load at receiving point: Takes random samples from load, weighs sample and containers, and calculates net weight and tare of total load. Sorts sample fruit by grade and size, according to company or government specifications. Weighs each portion of sample and calculates percentage of each size and grade in total load. Issues grade ticket or receipt for load.
GOE: 06.03.01 STRENGTH: M GED: R3 M3 L2 SVP: 3 DLU: 77

529.387-022 GAUGER (beverage)

Tests wine samples for alcohol content, acidity, and sugar content, using hydrometer, thermometer, and other laboratory equipment: Collects samples of wine from tanks for tests. Immerses hydrometer and thermometer in wine sample and compares readings with gauging manual to determine alcohol content. Pours specified amount of wine in glass cylinder and inserts hydrometer to determine sugar content. Measures sample for acid content, using chemicals and gauges. Examines sample for quality of color. Drafts charts and writes test reports.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.387-026 INSPECTOR, GRAIN MILL PRODUCTS (grain-feed mills) alternate titles: inspector technician

Weighs packaged cereal, feed, and flour products to verify weights and examines packages for adequacy of labeling, stamping, sewing, or sealing: Records weights on report form. Tests scales for accuracy, using standard weights, and adjusts scales. Compares sample of mixed feed with standard sample to verify adequacy of mixing or pelletizing process. Obtains and labels samples of flour grades produced and delivers them to laboratory. May review laboratory analysis of flour samples. May verify production reports with report of quantity of packed products received in warehouse and trace reason for discrepancies.
GOE: 06.03.01 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

529.387-030 QUALITY-CONTROL TECHNICIAN (can. & preserv.; food prep., nec)

Inspects raw materials and finished products, and tests and adjusts packaging or canning equipment during processing of foods, such as corn chips, vegetables, and breaded shrimp: Inspects, tests, weighs, tastes, and smells raw materials and finished products to determine such information as spoilage, whether cans, packages, or jars have vacuum seal, pH content of specified products, and weight of sample products, using equipment such as vacuum gauge, pH meter, and weight scale. Determines that oil, salt, and moisture content of raw materials or finished products meet company standards, using thermometer, pyrometer, and conductivity tester. Places standard weights on balance mechanism to determine accuracy of equipment packaging scales, and adjusts regulating mechanism of scales when necessary, using handtools. Reads temperature indicator on heat-sealing equipment, and turns knobs to adjust controls for intensity of heat required to seal packages, cans, or jars. Records inspection data, writes reports, and notifies supervisor of irregularities. May assign lot numbers to products and record product information, such as cooking time, date, and equipment pressure settings, to maintain log of operation, according to company requirement.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 78

529.387-034 SAMPLER (oils & grease)

Collects samples of oilseeds, such as soybean, cottonseed, and safflower, and tests for splits, foreign matter, and moisture: Dips probe into oilseeds to secure sample. Weighs and sifts sample to separate whole beans, splits, and foreign matter. Weighs splits and foreign matter to determine percentage of each in sample. Weighs whole beans to determine number of pounds per bushel. Tests sample, using moisture meter, to determine moisture content.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

529.462-010 SYRUP MIXER (grain-feed mills)

Controls steam-heated vats to heat and mix syrup ingredients, according to formula: Computes and weighs specified amounts of ingredients, such as corn, beet, and cane syrups and flavoring, and directs SYRUP-MIXER ASSISTANT (grain-feed mills) to dump ingredients into mixing vats. Starts pumps and agitators to admit steam into heating coils and transfer ingredients to vat filled with measured amount of corn syrup. Reads thermometers and turns steam valve to maintain mixture at specified temperature. Collects sample of syrup and tests to determine specific gravity, using hydrometer. Starts pumps to transfer batch to storage tanks. Inspects vats after cleaning by SYRUP-MIXER ASSISTANT (grain-feed mills) to ensure that fermentable residue is removed. May clean vats.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

529.467-010 TIP-LENGTH CHECKER (tobacco) alternate titles: tip tester

Measures length of tips cut from tobacco leaves and records data pertaining to sample: Gathers tip samples from conveyor belts and places samples in tip-length measuring boxes, according to length of tips. Counts tips of each length and records number and length. Submits tip-length report to supervisor at specified intervals.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L2 SVP: 3 DLU: 77

529.482-010 FREEZER OPERATOR (dairy products) alternate titles: freezer; ice-cream freezer

Operates one or more continuous freezers and other equipment to freeze ice cream mix into semisolid consistency: Weighs or measures powder and liquid ingredients, such as color, flavoring, or fruit puree, using graduate, and dumps ingredients into flavor vat. Starts agitator to blend contents. Starts pumps and turns valves to force mix into freezer barrels, admit refrigerant into freezer coils, and inject air into mix. Starts beater, scraper, and expeller blades to mix contents with air and prevent adherence of mixture to barrel walls. Observes ammeter and pressure gauge and adjusts controls to obtain specified freezing temperature, air pressure, and machine speed. Fills hopper of fruit feeder with candy bits, fruit, and nuts, using scoop, or pours syrups into holder of rippling pump. Sets controls according to freezer speed to feed or ripple ingredients evenly into ice cream expelled from freezer. Opens valve to transfer contents to filling machine that pumps ice cream into cartons, cups, and cones, or molds for pies, rolls, and tarts. Places novelty dies in filler head that separates flavors and forms center designs or rosettes in packaged product. Weighs package and adjusts freezer air valve or switch on filler head to obtain specified amount of product in each container. Assembles pipes, fittings, and equipment for operation, using wrench. Sprays equipment with sterilizing solution.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.482-014 NOVELTY MAKER I (dairy products) alternate titles: novelty dipper

Operates machines and equipment to freeze, cut, harden, and wrap stickless ice cream novelties: Turns valve and sets thermostat to circulate refrigerant and maintain specified temperature in hardening box. Inserts forming fixtures in nozzles of ice cream feedlines that extrude specified shape of ice cream ribbon for bar, doughnut, patty, or roll shaped novelty. Starts pumps and turns steam and water valves to fill and heat chocolate coating in enrobing tank to specified temperature. Starts machines that cut extruded ice cream ribbon into measured portions, deposit them on conveyor pallets moving through hardening box, and under chocolate coating spray, and envelope them in wrappers. Measures cut portions of ice cream, using gauge, and adjusts freezer air intake to obtain specified thickness of mixture. Observes fallen bars in hardening box or their position on pallets and turns controls to synchronize conveyor with freezer speed, and change hardening temperature or freezer pressure. Replaces wire over posts of cutter arm to repair broken cutter. Tends automatic wrapping machine [PACKAGER, MACHINE (any industry)]. Brushes pallets, using bristle brush to remove frost. Cleans machines.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

529.482-018 NOVELTY MAKER II (dairy products)

Operates machines and equipment to mold and freeze ice cream, fruit juice, or syrup stick novelties: Positions molds on machine, using hoist or places mold pans on conveyor. Attaches single or double extrusion valves to filler head with handtools. Observes gauges, turns valves, and starts pumps, to regulate temperatures of solutions in brine, wash, rinse, and chocolate dip tanks, and pressure in pneumatic power lines. Places sticks in dispensers of inserting machine and positions sticks over mold. Loads bags or cartons into dispensers or wrapping paper onto spindle and adjusts guides and controls on packaging machine [CARTON-FORMING-MACHINE OPERATOR (any industry); PACKAGER, MACHINE (any industry)]. Starts machines that freeze, coat, wrap, and eject novelties onto packing table. Inserts depth gauge into molds to measure fill and turns dial to obtain prescribed level. Weighs novelty and turns dial to adjust freezer speed or air intake to obtain specified thickness of mixture. Removes jammed sticks from dispensing slots, using pliers or picks.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.482-022 SYRUP MAKER (sugar & conf.)

Controls equipment, such as mixing kettles, pumps, pressure cooker, and homogenizer to make chocolate and other flavored syrups, according to formula: Weighs and dumps ingredients, such as cocoa powder, milk solids, and sugar into mixing kettle. Admits metered amounts of invert sugar syrup, whole milk,

cocoa butter, and chocolate. Starts agitators to mix batch for specified time and pumps mixture into pressure cooker. Observes gauges and thermometer and adjusts steam valves to control pressure cooker. Examines batch to detect lumps, and pumps mixture through homogenizer to ensure uniform consistency. Collects sample for laboratory analysis.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.484-010 STEAK SAUCE MAKER (can. & preserv.)
Prepares and cans mushroom steak sauce, using mixing, filling, and canning machines: Weighs ingredients, such as flour, chicken fat, starch, and seasoning, and dumps them into agitator partly filled with water. Closes kettle and cooks to proper consistency. Adds sliced mushrooms and continues cooking for specified time. Opens valve to permit flow of sauce to filling machine and starts automatic can filler and canning machines. Keeps hopper supplied with lids.
GOE: 06.02.28 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

529.485-010 BARREL FILLER (grain-feed mills)
Tends equipment to transfer glucose from refinery to cooling equipment and storage tanks or to load tank cars and drums preparatory to shipment: Starts vat agitator, and turns valves to admit water to cooling coils and transfer glucose from refinery to cooling vat. Starts pump to transfer cooled glucose to storage tank or tank cars. Removes bung cap of drum and examines interior for cleanliness. Positions drum on rack and turns spigot to fill drum with glucose. Screws bung cap to seal filled drums, using wrench. Weighs drums before and after filling, and stencils tare, gross, and net weight on drums. Obtains sample of glucose from vat for laboratory analysis.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

529.485-014 BLOW-UP OPERATOR (sugar & conf.)
Tends equipment that mixes diatomaceous earth, milk of lime, and acid with liquors and syrups to form slurry for filtration process: Turns valves to regulate flow of slurries through series of blow-up tanks, and to maintain temperature, content level, and air agitation in tanks. Adds milk of lime or phosphoric acid to slurry to obtain specified alkalinity. Tests slurries for density, using refractometer, and adds liquor or diatomaceous earth to maintain specified density. Tests samples of slurries to ascertain that specified purification is occurring. Records operating data on forms or blackboard. Prepares phosphoric acid solutions of specified concentration for use in filtration process. Cleans blocked lines and blow-ups.
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L3 SVP: 3 DLU: 77

529.485-018 DRIER, BELT CONVEYOR (food prep., nec)
Tends equipment that extrudes and dries compressed yeast to make bakers' active dry yeast: Dumps compressed yeast into hopper of extruding machine. Observes temperature indicator and moisture gauges on drier, and sets controls to maintain prescribed temperature and humidity in drier. Starts extruder that forms yeast into noodles and deposits them onto conveyor belt that carries yeast noodles through drier. Collects yeast samples from conveyor at specified locations in drier, submits samples to laboratory for analysis, and adjusts temperature and humidity of drier on basis of laboratory report. Connects mill to hopper outlet to grind dried yeast to specified fineness. Opens outlet of drier or mill hopper to fill containers. Weighs containers and records weight. Transfers containers to storage, using lift truck.
GOE: 06.04.15 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 77

529.485-022 MATURITY CHECKER (can. & preserv.)
Tends machine that mashes peas and registers force required to crush them to ascertain hardness (maturity) and grades peas: Fills measured pail with pea sample and weighs sample, using scale. Washes and cleans sample to remove debris, such as thistles and weeds, reweighs sample, and calculates percentage of waste per load of peas based on sample. Pours pea sample into top of size grader and counts number of peas in each grade level to calculate percentage of each grade of pea in crop. Dumps cleaned peas on grid of machine and closes cover. Starts motor to rotate disks of grid which mash peas and simultaneously registers force required on dial. Repeats test on second sample from same pan and records dial readings. Records average force required to mash peas, which determines quality of product. Inserts slip showing quality into container.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L2 SVP: 2 DLU: 77

529.485-026 WEIGH-TANK OPERATOR (oils & grease) alternate titles: scale-tank operator
Tends equipment to weigh oils and other ingredients used in making margarine or shortening, following standard formulas: Starts pump, and turns valve to admit ingredients into scale tank until specified weight has been reached. Positions weights on scale bar to weigh additives or smaller batches of ingredients. Records weights of ingredients. Turns valves to empty weighed ingredients from scale tanks into mixing vat for blending. May turn valve to admit air into scale tanks to agitate and mix ingredients.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

529.486-010 NUT-PROCESS HELPER (can. & preserv.) alternate titles: cooker helper
Performs any combination of following duties concerned with processing nuts: Stirs nuts being boiled in water to soften shells preparatory to cracking, using paddle. Dumps softened nuts into hoppers or onto conveyors leading to cracking and packing machines. Changes nut-cracking barrels on machines, using handtools. Mixes, weighs, and pours nuts into containers. Cleans working areas, machines, and equipment. Moves materials, supplies, and nuts between work areas, using dollies and handtrucks. May be concerned with specific phase of nut processing and be designated Nut-Roaster Helper (can. & preserv.).
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

529.487-010 SPECIAL TESTER (tobacco)
Tests tobacco samples from various stages of processing to determine conformance to quality standards: Obtains tobacco samples from various processing areas to ensure representative sampling. Conducts tests to determine characteristics of tobacco batch, such as stem length, percentage of lamina, stem, and foreign matter content, using scales, laboratory equipment, and calculator.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

529.565-010 SUGAR CONTROLLER (sugar & conf.)
Tends equipment to screen, blend, and convey granulated and confectioner's sugar to packing room and storage bins: Installs separation screens in machines according to size of sugar crystals specified. Tests sugars for color and grist. Blends sugars according to specifications. Starts pneumatic conveyors and regulates speed to convey blended sugar to packing units or storage bins. Gives directions to workers in screening, blending, and routing of sugar. Keeps records of sugar on hand. Inspects equipment and reports malfunction to superior. May repair torn screens.
GOE: 06.04.15 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

529.567-010 CIGARETTE INSPECTOR (tobacco) alternate titles: catching inspector; cigarette examiner; cigarette-making examiner
Inspects cigarettes to determine quality of cigarette-making machine output: Collects and examines samples from each machine for defective printing, filling, sealing, and cutting. Places twenty cigarettes in tray gauge to verify dimensions. Verifies position of brand name printed on wrapper, using gauge. Weighs cigarettes to determine conformance to standard and records weight and hour of weighing. Notifies CIGARETTE-MAKING-MACHINE OPERATOR (tobacco) of deviations from standards.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.567-014 MARKER, COMPANY (tobacco) alternate titles: embossing clerk
Inspects tobacco purchased by company at auction warehouse for quality and uniformity of grade and identifies each basket of tobacco: Pulls handful of tobacco from pile and inspects tobacco for damage, mixed color, and grades. Embosses company name over price marked on warehouse ticket to prevent alteration, using hand-embossing machine, or copies ticket and attaches duplicate to basket.
GOE: 05.09.03 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529.582-010 CARBONATION EQUIPMENT OPERATOR (sugar & conf.)
Controls carbonation and sulfitation equipment to purify and bleach sugar solution: Reads alkalinity indicator and turns knob on instrument control panel or hand valves on tanks to regulate flow of sulfur dioxide gas, carbon dioxide gas, lime, milk of lime, saccharate slurry, or sugar beet juice into carbonation tanks. Draws, filters, and tests for alkalinity, solutions taken from carbonation tanks, using phenolphthalein and dilute hydrochloric acid. Records results of tests on form.
GOE: 06.02.15 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

529.582-014 FLASH-DRIER OPERATOR (grain-feed mills)
Operates flash-drier and semiautomatic equipment to produce stockfeed or starch products from milled grain: Turns handwheels to regulate fineness of grind in processing stockfeed through attrition or hammer mill. Starts pumps and turns valves to regulate moisture content and flow of material through filters, shakers, and centrifugal separators to process starch products. Observes and reads instruments, such as thermometers and gauges to monitor process. Listens for alarm that indicates excessive temperature in drier. Turns valves to regulate gas burners and adjust drier temperature and flow of materials. Feels sample of product to determine dryness. Inspects conveyor system to prevent or correct jams. Keeps record of instrument readings and processing conditions. May manually operate equipment in event of emergency.
GOE: 06.02.15 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

529.585-010 CHEESE CUTTER (dairy products)
Tends machine that cuts blocks of cheese into pieces of specified shape and size: Examines cheese for defects in color, texture, and body. Bolts specified cutting head to machine, using wrench, adjusts stops on cutting table, and turns wheels to position cutting wires. Places block on table, and moves lever to lower cutting head or raise table to cut cheese. Weighs cut cheese, places pieces on conveyor, and records amount cut. May measure cheese with ruler and cut with hand cutter. May trim rind, mold, or sediment from cheese, using knife.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.585-014 TANK TENDER (sugar & conf.)
Tends equipment that distributes syrups, molasses, sludges, and sweet waters for further processing or into storage tanks: Starts pump to move liquid to tank or to transfer liquid to processing stations. Regulates amount of steam and air in tanks to maintain temperature and density of solutions. Adds milk of lime to liquid to maintain specified alkalinity. Records data concerning purity, density, and routing of tank contents. Drains and cleans lines and screen pots to prevent caking or contamination of liquor. Delivers samples of solutions to laboratory for analysis. May be designated according to tanks operated as Receiv-

ing-Tank Operator (sugar & conf.); Remelt-Pan-Tank Operator (sugar & conf.); White-Sugar-Pan-Tank Operator (sugar & conf.); White-Sugar-Syrup Operator (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

529.587-010 BOTTLE GAUGER (beverage) alternate titles: gauger

Measures quantity and temperature of whiskey in bottles as they are filled by bottle-filling machine: Removes, at random, filled bottle of whiskey from conveyor, empties contents into graduated cylinder and records scale reading indicating fluid ounces. Inserts thermometer and hydrometer into cylinder to measure temperature and proof of whiskey and records results of test. Compares readings with charts indicating desired company standards to ensure that high quality of product is maintained during bottling process. Pours contents of cylinder back into bottle and places bottle on conveyor for labeling. Records size of bottle being filled, serial numbers, and brand of whiskey.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

529.587-014 SAUSAGE INSPECTOR (meat products) alternate titles: frankfurter inspector

Inspects frankfurters, wieners, or link sausages for uniformity of length and firmness of stuffing. Records number and weight of product.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.587-018 SCRAP SEPARATOR (food prep., nec)

Separates macaroni scraps recovered from presses and packaging areas, according to type and condition, for disposal, remilling, or for sale as hog or poultry feed: Collects scraps dropped from processing and packaging equipment and sorts scrap into barrels for reprocessing, according to type of scrap (wet or dry), and dirt content. Removes trimmings from batch drier and dumps trimmings into barrels designated for remilling. Moves filled barrels to designated areas and replaces empty barrels in processing departments. Records amount and type of scrap recovered and its disposition.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.587-022 TOBACCO-SAMPLE PULLER (tobacco) alternate titles: moisture-test puller; sample puller; test puller

Obtains and grinds samples of tobacco leaves used in making moisture tests: Pulls leaves from hands of tobacco at discharge end of redrying machine or extracts sample of tobacco strips (stems removed) from hogsheads or shipping cartons, using electric auger. Feeds sample into grinder. Pours ground tobacco into container, places container in tumbler, starts tumbler to mix ground sample, and labels container showing date, machine, hogshead number, grade, and time collected. May only extract and label samples for grinding and be designated Sample Driller (tobacco).
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.665-010 FRUIT-GRADER OPERATOR (agriculture; wholesale tr.)

Tends machine that grades fruit according to size: Changes chains and other driving gear according to type of fruit. Directs workers engaged in loading of elevator belt and removal of graded fruit. Cleans and lubricates chains, bearings, and machine gears, using rags and grease gun. Repairs, replaces, and adjusts malfunctioning parts of machine.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.665-014 WASHROOM OPERATOR (sugar & conf.)

Tends beet washing equipment and elevators that clean sugar beets preparatory to slicing: Starts elevators and washing equipment, and turns valves to regulate water flow through washing vat. Signals FLUMER (sugar & conf.) to adjust flow of beets in flume, using telephone. Turns valves to drain water from washing vat. Cleans debris from vat, using water hose.
GOE: 06.04.15 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

529.665-018 WET-AND-DRY-SUGAR-BIN OPERATOR (sugar & conf.)

Tends equipment, such as elevators, drags, and scrolls, that conveys wet sugar to granulator scrolls, and dry sugar to separator screens: Signals GRANULATOR OPERATOR (sugar & conf.) with bell signal to stop granulator when content of wet-sugar bins is low or dry-sugar bins are congested. Washes equipment with hose and directs sweetwater (wash water containing sugar) into recovery system. Shuts off flow of sugar to each bin periodically to prevent caking and hardening of sugar in bins and conveying equipment. Refills bin after emptying.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.665-022 YEAST-CUTTING-AND-WRAPPING-MACHINE OPERATOR (food prep., nec) alternate titles: yeast-cake cutter

Tends machines that compress and extrude bulk yeast into continuous bars, cut bars into cakes of specified size, and wrap and heat-seal cakes: Signals worker to fill hopper of extruder with yeast. Positions and threads roll of paper, plastic film, or foil through roller guide of wrapping mechanism, and starts machines. Removes yeast cakes from conveyor emerging from cutter and feeds cakes into wrapping machine, discarding cracked or malformed cakes. Observes cutting and wrapping operation to detect jamming or twisted wrapping. Packs wrapped yeast cakes in cartons.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.666-010 CATCHER, FILTER TIP (tobacco) alternate titles: catcher, plug

Off bears and examines cigarette filter plugs (tips) discharged from cigarette filter-making machine: Picks up double handful of plugs and examines them for defects in cutting, gluing, size, and filling. Inspects both ends of plugs and places plugs in tray. Removes defective plugs from tray. Notifies CIGARETTE-FILTER-MAKING-MACHINE OPERATOR (tobacco) of defective product.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

529.666-014 CIGARETTE-MAKING-MACHINE CATCHER (tobacco) alternate titles: cigarette and assembly-machine inspector; making-machine catcher

Off bears and examines cigarettes discharged from cigarette-making machine and places them in cigarette tray preparatory to packaging: Picks up double handful of cigarettes from conveyor and observes cigarettes to detect defective gluing, filling, and printing of brand name. Places cigarettes in tray and pushes cigarettes against back of tray to even edges, using hand or paddle. Places defective cigarettes in separate container. Periodically inserts 20 cigarettes in tray gauge to verify length, circumference, and location of brand name. Notifies CIGARETTE-FILTER-MAKING-MACHINE OPERATOR (tobacco) of machine malfunction.
GOE: 06.04.15 STRENGTH: S GED: R2 M1 L2 SVP: 2 DLU: 77

529.667-010 INSPECTOR, FILTER TIP (tobacco) alternate titles: inspector, plug seam

Inspects cigarette filter plugs (tips) to detect imperfections: Removes plugs from conveyor of filter-making machine and examines plugs for dirt and irregularities in size, firmness, sealing, and cut. Tears paper from plug and examines filter material for defects. Measures and examines plug seams, using magnifying glass with graduated scale. Records findings on chart. Notifies CIGARETTE-FILTER-MAKING-MACHINE OPERATOR (tobacco) or MACHINE ADJUSTER (tobacco) of deviations from specifications. Tests air draft of filter rods, using draft-resistence meter.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

529.667-014 MASH-FILTER-CLOTH CHANGER (beverage) alternate titles: cloth changer

Removes and replaces filter cloth in mash filter, working as member of team: Unscrews and removes backplate of filter. Slides cloth-covered plates out of filter to drop spent grains on conveyor. Pulls wet cloths off plates and throws cloths into disposal chute. Moves racks of clean cloths to filter, using electric hoist. Positions and fits cloths over plates and replaces plates. Washes inside and outside of filter, using hose.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.682-010 CENTRIFUGE OPERATOR (sugar & conf.) alternate titles: drier operator

Controls centrifuge machine to melt, mix, and filter chicle for use in manufacturing chewing gum: Weighs specified amounts of ingredients and moves ingredients to machine, using handtruck. Loads ground chicle into steam-jacketed cooker of centrifuge according to prescribed time sequence. Reads gauges and turns air pressure and steam valves to maintain specified temperature and pressure in cooker and to control melting of chicle. Starts pumps that force melted chicle through strainers that filter out impurities and pump chicle into receiving tank. Cleans strainers and filters to remove collected impurities. Lubricates and makes minor repairs to equipment.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

529.682-014 CHEESEMAKER HELPER (dairy products)

Operates dairy processing equipment and performs following tasks to assist CHEESEMAKER (dairy products) in making cheese: Separates and pasteurizes milk, using dairy processing equipment. Starts pump, turns valves, and observes gauges to fill cheese vats with specified amount of milk and maintain specified temperature in vats. Dumps dye and starter into milk. Starts agitator to mix ingredients. Dumps rennet into vat to coagulate milk into curd. Dumps, presses, and salts curd. Pierces, washes, and turns cheese blocks to cure cheese. Operates washing machine and extractor to clean and dry cloths. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

529.682-018 DEPOSITING-MACHINE OPERATOR (sugar & conf.) alternate titles: first helper; starch crab

Operates machine that deposits metered amount of fluid candy in molds, on trays or mats, or directly on conveyor: Opens valve or starts pump to fill hopper of machine. Observes thermometer and adjusts steam supply to maintain specified temperature in steam-jacketed machine hopper. Turns handwheel to regulate flow of candy from depositing spout. Positions trays, molds, or mats on conveyor leading to machine. Turns handwheel to synchronize piston stroke of depositor with speed of conveyor belt. Weighs formed candy and adjusts pouring spouts to regulate specified amount of candy deposited. May manually feed trays, molds or mats into machine. May prepare starch molds [STARCHMAKER (sugar & conf.)]. May be designated according to candy formed as Mint-Wafer Depositor (sugar & conf.).
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.682-022 DRIER OPERATOR (sugar & conf.)

Controls equipment, such as mixing and treating tanks, incubator (pasteurizer), and drier, to alkalize nibs (cracked roasted cocoa beans) for dutch process chocolate: Mixes measured amounts of water with potash in mixing tank to prepare alkali solution. Turns thermostat, rheostat, valves, and switches to control pasteurization process in incubator, temperature of drier, processing time cycles, and speed of conveyor carrying nibs and other materials to and

from equipment. Immerses measured amounts of nibs in alkali solution in treating tank and allows tank to rotate for specified time. Releases treated nibs onto conveyor or through slide gate to admit into storage bins or to pasteurizer for specified time. Discharges pasteurized nibs onto conveyor to carry material through drier. Collects samples of dried nibs for laboratory analysis. May move and position portable incubator, using electric truck. May pregrind nibs preparatory to making chocolate liquor [LIQUOR-GRINDING-MILL OPERATOR (sugar & conf.)].
GOE: 06.02.15 STRENGTH: M GED: R4 M2 L3 SVP: 5 DLU: 77

529.682-026 LOZENGE MAKER (sugar & conf.)
Operates machine that rolls dough into sheets, and embosses and cuts dough into candy lozenges: Positions and secures cutting and embossing dies in place, using wrench. Adjusts ram stroke of cutting die to synchronize it with speed of dough rollers and discharge conveyor. Turns handwheel to adjust clearance between rollers. Dumps lozenge dough into hopper and starts machine. Sprinkles cornstarch onto dough to prevent sticking to rollers and dies. Examines and weighs formed lozenges for conformity to size, shape, and weight specifications, and readjusts roller speed and clearance to meet product standards. May adjust printer bars on machines to print or emboss designs on lozenges before cutting.
GOE: 06.02.15 STRENGTH: H GED: R3 M1 L2 SVP: 5 DLU: 77

529.682-030 SILO OPERATOR (tobacco)
Controls panelboard to convey stemmed and redried tobacco from redrying machines into silos (interim storage) and to packing machines: Pushes buttons to start conveyors in specified sequence, according to daily production schedule. Observes dials and gauges to route stemmed and redried tobacco from redrying machines, through silo, and into packing machines. Observes panel lights for indication of malfunction and adjusts conveyors to regulate feed of tobacco into and out of silos.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

529.682-034 WHIPPED-TOPPING FINISHER (oils & grease)
Operates equipment to process ingredients, such as oil, emulsifier, stabilizer, liquid sugar, and flavorings into whipped topping: Turns valves and starts pump to transfer mixed batch through equipment, such as blending tank, versator, pasteurizer, homogenizer, and colloid mill and into storage tank. Adjusts colloid mill to reduce liquid particles to specified emulsion size. Observes gauges and adjusts valves to control temperature and pressure when pasteurizing, homogenizing, and cooling product. Observes gauge on storage tank to ensure maintenance of specified stock level. Turns valve to blanket product with carbon dioxide to prevent contamination. Cleans equipment, using water, solvents, and brushes.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

529.682-038 EGG PASTEURIZER (agriculture)
Controls and monitors equipment that pasteurizes liquid egg product: Connects pipes between holding tanks and processing equipment and assembles equipment parts, such as fittings and valves, using wrench. Turns control to set timer for pumping cycle, records starting time on processing record, and adjusts temperature controls to bring temperatures to specified level. Places container under discharge outlet to collect initial flow of water and liquid egg product through equipment. Turns valves to admit liquid egg product from holding tank into collection pot and to start pump that propels product and water through equipment. Turns bypass valve to direct flow into discharge containers until mix of water and egg product reaches desired density. Turns valve to shut off bypass and to direct liquid egg product to containerization room. Monitors product flow and adjusts controls to maintain temperature and pressure at specified levels. Turns bypass valve to shut off flow to containerization room when mixture thins. Drains remaining flow into discharge containers.
GOE: 06.02.15 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 86

529.684-010 FROZEN PIE MAKER (can. & preserv.)
Measures specified amounts of ingredients, such as precooked meats, vegetables, fruits, or sauce, into dough-lined pie plate, and covers ingredients with prerolled pie crust topping in preparation for freezing: Manually bones meats. Weighs specified amount of meat, vegetable, or fruit pieces and places them in pie plate. Adds specified ingredients, such as sugar, spices, or sauce, to fill pie plate. Covers pie with prerolled pie crust and crimps edges, using hand crimping device. Dips brush in egg yolk mixture and spreads mixture over pie crust. Places pie in refrigerator to dry egg topping. Removes dried pies, packs pies in boxes, and stacks boxes in freezer.
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.684-014 INGREDIENT SCALER (bakery products; dairy products) alternate titles: ingredient mixer
Measures ingredients according to formula for bakery, dairy, and confectionery batches: Reads daily production schedules and selects formula cards for desired batches. Weighs dry ingredients on scales or pours liquid ingredients into graduated containers. Places assembled ingredients for each batch with identifying batch number on conveyor or handtruck or dumps batches in mixing bowl or machine. Records number of batches prepared.
GOE: 06.04.28 STRENGTH: M GED: R3 M2 L3 SVP: 2 DLU: 78

529.684-018 SIEVE MAKER (grain-feed mills)
Makes and repairs sieves used in flour sifting machines, using handtools: Tacks cotton cloth lining onto frame and stretches and staples wire screen across bottom. Places free-moving cloth pads in frame. Stretches and tacks silk cloth across top of frame. Tacks strips of cotton flannel around outer sides of frame so sieve fits snugly into machine. Removes and replaces defective parts of damaged sieves. May be designated according to function as Sieve Repairer (grain-feed mills).
GOE: 06.04.25 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-010 AUTO ROLLER (tobacco)
Tends machine that automatically rolls cigars and cheroots: Starts machine and positions wrapper leaf on die of machine. Pulls handle that lowers knife and cuts wrapper leaf in shape of die. Feeds cut wrapper leaves into machine along with bunches.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-014 AUTOMATIC LUMP MAKING MACHINE TENDER (tobacco)
Tends machine that automatically presses and slices cased (tobacco with flavoring added), shredded tobacco into lumps of chewing tobacco: Turns knobs to adjust speed of machine conveyor according to brand, grade, and weight of cased tobacco. Starts machine and observes operation to detect malfunctions, such as jam-ups or uneven flow of tobacco entering machine. Stops machine to remove tobacco caught between pressing rollers or weighing unit. Weighs random lumps to verify accuracy of reject weighing unit, using scale. Turns knob to adjust weighing unit as necessary to maintain standard weight of lumps. Replenishes containers with alcohol solution that is automatically sprayed on machine rollers and conveyor to prevent sticking of cased tobacco. Cleans machine.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

529.685-018 BINDER LAYER (tobacco)
Tends unit of fresh-work cigar machine that cuts binder leaves: Starts machine. Flattens binder leaf and lays it on suction plate die. Repositions leaf on die as machine cuts and removes portions. Brushes leaf scraps into box.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-022 BLENDER-CONVEYOR OPERATOR (dairy products)
Tends machines that automatically grind, sift, weigh, blend, and convey milk powders to instantizing and filling vats: Slides specified screens into grinder, opens chutes on conveyor, and dumps blended powder into vat. Weighs ingredients, such as potash, salt, soda, and vitamins, according to formula, and dumps them into blending machine. Starts machines that automatically grind and screen chunks of dried milk, weigh and blend powder with other ingredients, and convey blended powder to instantizing or filling vats. May weigh prescribed amount of liquid lecithin and pump into blending vat. May operate power lift truck to move material.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

529.685-026 BOTTLED-BEVERAGE INSPECTOR (beverage) alternate titles: beverage-inspection-machine tender; bottle inspector
Tends beverage inspection machine, equipped with photoelectric cell, that automatically detects and rejects filled beverage bottles containing solid impurities: Starts conveyor that conveys bottles filled with alcoholic or nonalcoholic beverages through inspection machine. Removes rejected bottles from reject tray and examines contents of bottles in front of inspection light to verify presence of solid impurities. Drops bottles containing impurities in refuge container for disposal. Observes bottles on conveyor to detect jamming or bottle defects, such as chips and cracks. Drops defective bottles in refuse container for disposal. Removes fallen or other bottles blocking feed or discharge openings of inspection machine and replaces bottles on conveyor. Periodically places test bottle in feed opening of inspection machine and examines reject tray for bottle to ensure that machine is operative.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.685-030 BRINE-TANK TENDER (dairy products) alternate titles: pusher; putter-in
Tends equipment to make frozen stick confections, performing any combination of following tasks: Positions mold pan under filler spouts and presses pedal to fill pan with ice cream, fruit juice, or syrup mix. Places tray against machine and pushes levers to insert and lock sticks in tray slots. Places tray over mold pan and presses switch or pushes pans to move them over brine tank to freeze ingredient onto sticks. Dips frozen mold pans into water to defrost and removes tray of stick bars. Dips tray of frozen bars into chocolate and places tray on conveyor leading to chill tunnel. Fills dispensers of bagging machine, positions tray over bagging chutes, and pulls lever to drop bars into bags. Turns valves, controls, and switches to alter level of mix in molds, flow of ingredients into filler hopper and chocolate tank, or temperature of chocolate or brine. May test brine content, using hydrometer and add salt to maintain prescribed strength. May mix flavor, sugar, and water to make flavored ice mixes. May fill dispensers and remove jammed sticks from automatic stick machines. May be designated according to work performed as Mold Filler (dairy products); Mold Remover (dairy products); Stick Inserter (dairy products).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-034 BULKER, CUT TOBACCO (tobacco)
Tends chutes and raking machine to feed and spread tobacco evenly into bulks: Opens chute to direct flow of tobacco into bulks and starts rake. Adjusts angle of rake to spread tobacco evenly in bulks.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-038 BUNCH MAKER, MACHINE (tobacco) alternate titles: bunch-breaker-machine operator; buncher, machine; short-filler-bunch-machine operator

Tends machine that rolls cigar filler and binder leaves into bunches: Places binder on rubberized fabric apron (breaker) of machine, and pulls lever of hopper to distribute filler on binder, or manually distributes filler. Presses pedal of machine that rolls tobacco into cigar shape. Removes bunch from machine and applies glue to edge of binder to secure binder. Places bunches in molds for compressing or in machine that wraps them in wrapper leaves to form complete cigar. May be designated according to type of tobacco used in forming bunches as Scrap-Bunch Maker (tobacco).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-042 BUTT MAKER (tobacco)

Tends machine that forms scrap and binder leaf tobacco into cigar-like roll and cuts roll into butts (slices) of chewing tobacco: Starts machine and dumps scrap into hopper of machine. Feeds binder leaf into machine that wraps leaf around scrap into roll and conveys roll under cutting knives. Places box or basket at discharge end of machine to catch butts.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-046 CAN-CONVEYOR FEEDER (food prep., nec)

Tends machine that automatically feeds empty coffee cans onto conveyors leading to filling machines: Presses button to activate machine-lift mechanism that raises stacked cans and transfers them onto mechanical conveyor. Observes passing cans and removes defective ones. May place cans on sloping metal runway leading to conveyors to feed cans onto conveyors from freight cars. May transfer cans from containers onto belt or chain conveyor.
GOE: 06.04.40 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-050 CHAR-CONVEYOR TENDER (sugar & conf.)

Tends conveyor-belt system to distribute wet char from filters to drying hoppers and dried char from driers or bins to filters: Starts conveyor system under filter being emptied, and positions gate on belt over designated hopper to divert char from belt into hopper. Rakes char from one hopper to another to keep hoppers full. Starts shaker machine that distributes dried char from hopper or bins onto conveyor for transmission to filters. Inspects and cleans drier screens and pots. Sweeps and weighs char dust from dust-cooler room. May be designated according to conditon of char as Wet-Char Conveyor Tender (sugar & conf.); or location of job as Char Conveyor Tender, Cellar (sugar & conf.).
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-054 CHOCOLATE MOLDER, MACHINE (sugar & conf.)

Tends machine and equipment that deposit tempered chocolate into molds to form bars, blocks, and assorted figures: Opens valves to draw chocolate from tempering kettle or automatic tempering equipment into water-jacketed depositor of molding machine. Observes thermometer and turns valves to admit and circulate water in jacket to maintain specified temperature of chocolate in depositor. Adjusts piston stroke of depositor that forces measured amounts of chocolate into conveyorized molds, using handtools. Turns handwheel to adjust speed of conveyor. Starts machine. Weighs filled molds to ensure that weight of chocolate casts meet specifications. Observes thermometer and turns thermostat and valve to control temperature in cooling tunnel. Observes action of machine to ensure that molds do not jam. May temper chocolate [CHOCOLATE TEMPERER (bakery products; grain-feed mills)].
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

529.685-058 CIGAR-HEAD PIERCER (tobacco) alternate titles: cigar-head holer; cigar-head pegger; cigar-head perforator; cigar-head puncher; cigar-head stringer

Pierces draft holes in ends of cigars. Holds cigar in guide of machine and presses pedal that forces revolving pin into cigar, or manually pushes pin into cigar to pierce draft holes in ends of cigars.
GOE: 06.04.28 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-062 CIGARETTE-FILTER-MAKING-MACHINE OPERATOR (tobacco) alternate titles: plug-making operator

Tends machine that wraps and cuts cigarette filter plugs (tips): Installs rolls of filter material (fiber) and tissue paper on spindles of machine and threads ends between rollers. Starts machine and observes machine operation, product, and gauges to detect malfunction. Turns setscrew or handwheel to adjust feed mechanism and cutting knives. Repairs or replaces worn, damaged, or broken parts, such as pulley belts and cutting knives, using handtools. Removes and replaces empty paste cylinders. Supplies CATCHER, FILTER TIPS (tobacco) with empty cardboard trays and removes filled trays onto pallet.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-066 CIGARETTE-MAKING-MACHINE OPERATOR (tobacco) alternate titles: cigarette and assembly machine operator; making-machine operator, filter

Tends cigarette-making machine that encases tobacco in continuous paper roll and cuts cigarettes from roll: Places roll of cigarette paper on spindle. Sets monogram-printing device to print brand name on paper at specified position, using wrenches. Regulates flow of shredded tobacco to ensure that cigarette contains specified amount of tobacco. Fills ink and glue reservoirs. Threads cigarette paper between guide rolls and adjusts friction tension on holding spindles, using wrench. Starts machine and observes operation. Reports malfunction to MACHINE ADJUSTER (tobacco). Cleans paper scraps and waste materials from machine, using brush. Places coil of tipping material on spindle and fills hopper with filters when making filter-, cork-, straw-, or ivory-tipped cigarettes. Replaces full catching trays. May be designated according to type of cigarette as Filter-Cigarette-Making-Machine Operator (tobacco).
GOE: 06.04.15 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

529.685-070 COLORER, CITRUS FRUIT (wholesale tr.)

Tends equipment to subject citrus fruits to ethylene gas to destroy chlorophyll and produce fruit of natural appearance: Ascertains from supervisor time, humidity, and amount of gas to be used for each lot of fruit stored in coloring room. Observes gauges and dials and manipulates controls to steam-heat room, to pump gas throughout room, and to keep specified humidity.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-074 CONTAINER WASHER, MACHINE (any industry)

Tends machine that cleans and sterilizes containers, such as barrels, fruit juice bottles, milk cans, and baking pans: Moves controls to fill washing and sterilizing tanks with water and steam, and to regulate temperature in cleaning tank. Dumps specified amounts of chemicals into cleaning tank. Loads containers on conveyor that carries containers through cleaning and sterilizing operations. Examines containers for cleanliness and defects, such as dents and cracks. Cleans and lubricates equipment. May manually clean containers prior to machine cleaning, using sponge or brush. May be designated according to type of container washed as Barrel Washer, Machine (any industry); Bottle Washer, Machine (any industry) I; Can Washer, Machine (any industry).
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-078 CORN-PRESS OPERATOR (food prep., nec)

Tends machine that shapes and cooks dough to make tortillas and corn chips: Kneads masa (cornmeal dough) into loaves as masa emerges from corn-grinding machine and places masa into hopper of shaping machine. Starts machine to flatten dough between rollers, cut it into shape, and convey shaped dough through baking oven to make tortillas, or frying tank to make corn chips. Inspects cooked tortillas or corn chips for color, size, and texture and regulates cooking temperature and conveying speed as required. May be designated according to product made as Corn-Chip Maker (food prep., nec); Tortilla Maker (food prep., nec).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-082 CUTTER (food prep., nec)

Tends bandsaw or cut-off saw to cut macaroni products, such as spaghetti and noodles, into packaging lengths: Slides strands of macaroni product from drying stick onto table and presses curved ends to break strands in half. Gathers strands into bunches and positions them against saw guide. Starts saw, cuts product into specified lengths, and packs them in carton. May tend hydraulic knife to cut products.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-086 DECAY-CONTROL OPERATOR (wholesale tr.)

Tends machine that pumps gas to retard decay of fresh fruits and vegetables during storage and shipment: Loads machine with chlorine and salt. Starts machine that pumps gas into storage space or freight car. Periodically tests concentration of gas, using comparometer, and adjusts flow accordingly. Stops machine when specified time has elapsed and blows gas from storage area or freight car.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-090 DEFECTIVE-CIGARETTE SLITTER (tobacco) alternate titles: ripper operator; slitting-machine feeder

Tends machine that cuts paper from defective cigarettes to reclaim tobacco: Attaches hoisting bar to tub of cigarettes. Starts machine and pulls rope to hoist tub and dump cigarettes into hopper that feeds cigarettes under cutting knives and onto separator (vibrating screen) that separates paper from tobacco.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-094 DEOILING-MACHINE AND PASTEURIZING-MACHINE OPERATOR (beverage)

Tends machines that extract and pasteurize oils from citrus fruit juices: Starts machines, and turns steam valves to heat juice. Observes steam gauges and thermometers and adjusts controls to keep temperature and pressure within specified limits. Notifies supervisor of malfunctioning machines. Washes machines.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-098 DRIER OPERATOR, DRUM (food prep., nec)

Tends machines that dry and grind liquid food products, such as chocolate, malt, milk, or yeast: Turns valve to control flow of steam to heat drier to operating temperature and observes thermometer and pressure gauge to ensure that specified temperature and pressure are maintained. Installs cutting blades and screens in mill. Starts drier and turns valve to regulate material flow between heated revolving drums. Observes thickness and color of dried material sheet emerging from drums to determine moisture content of material. Turns screws to adjust drum speed and thickness of sheet to ensure that required dryness of material is attained. Turns screws to adjust knife that scrapes material off drum. Starts conveyor that carries dried material into mill. Places container at outlet of mill to catch dry, ground product. May be designated according to material dried and ground as Yeast-Drier Operator, Drum (food prep., nec).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

529.685-102 DUMPING-MACHINE OPERATOR (can. & preserv.; wholesale tr.)
Tends dumping machine that automatically grips, tilts, and dumps boxes of fruit or other produce into flue or onto conveyor leading to washing vat, and returns empty boxes. May start and stop conveyor to control flow of fruit. May oil, grease, and make minor adjustments to machine. May clear box jams and restart machine.
GOE: 06.04.40 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-106 EXPELLER OPERATOR (grain-feed mills; oils & grease) alternate titles: corn-oil extractor; roll operator
Tends machine that flattens and dries oilseed, such as soybean, cottonseed, and corn, and presses it to extract oil: Turns handwheels to adjust distance between rollers that flatten oilseed. Starts rollers and turns gate valve to admit oilseed. Observes rolling process to ensure that pressure of rollers on oilseed is not sufficient to extract oil. Turns control of heat drier to specified temperature, and opens chute to admit flattened oilseed to drier. Turns steam valves of heat cooker to cook dried oilseed. Turns handwheels to adjust roller pressure of oil expeller. Feels samples of expelled oilseed to determine that sufficient quantity of oil has been removed. May tend attrition mill that breaks up dehydrated oilseed [MILL OPERATOR (grain-feed mills)]. May tend filter press to filter oil [PRESS TENDER, HEAD, FEED HOUSE (grain-feed mills)]. May be designated according to process phase as Crusher Tender (oils & grease); Drier Tender (oils & grease) II; Oil-Expeller (grain-feed mills; oils & grease).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

529.685-110 FILLER SHREDDER, MACHINE (tobacco) alternate titles: filler sifter, machine; scrap cutter, machine; shredded-filler-cutter operator
Tends machine that cuts tobacco leaves into shreds and cleans shredded tobacco for use as cigar filler: Spreads tobacco evenly on conveyor feed belt or dumps tobacco into hopper of machine. Starts machine. Scrapes tobacco from revolving knife of machine. Replaces filled receptacles under filler chute and foreign matter chutes.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-114 FILTER TENDER, JELLY (can. & preserv.)
Tends control panel that regulates flow of fruit juices through filtering system and cooks juices preparatory to processing into jelly: Depresses button to regulate flow of juice from storage tank, through filter system, into cooking kettle. Turns valves to open supply lines to add specified amount of sugar into kettle and activates heating controls to cool mixture. Turns valves on centrifugal pump to transfer juice from kettles to receiving tanks for processing into jelly.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L1 SVP: 3 DLU: 77

529.685-118 FISH CLEANER MACHINE TENDER (can. & preserv.)
Tends machine that removes heads, fins, viscera, and tails from fish preparatory to canning: Starts machine and conveyor system. Positions fish on feed table and aligns head with cutting knife. Places beheaded fish in machine feed trough and pushes tail into teeth of fish cleaning machine. Pulls lever to regulate speed of conveyors. May replace worn knives, using handtools.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-122 FISH-CAKE MAKER (food prep., nec)
Tends machines and equipment that grind, mix, form, and cook raw fish to make fishcakes: Skins and bones fish, using knife. Places boned fish in grinding machine that grinds fish into paste. Dumps paste in mixing machine and adds specified amounts of ingredients, such as flour, water, and spices. Feeds mixed ingredients into extrusion machine that forms and places fishcakes onto conveyor for transfer to automatic deep-fry cooker, freezing tunnel, and packaging machine. May cook cakes in steam cooker or fries cakes in oil. May wrap cooked fishcakes in wax paper.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

529.685-126 FLAVOR EXTRACTOR (grain-feed mills)
Tends equipment that extracts cereal flavoring from mixture of malt, sugar, salt, water, and other ingredients: Opens valve to fill mixing tank with water. Dumps specified amount of malt into hopper, from which it is fed through crimping rolls and into mixing tank. Starts agitator revolving in tank. Opens valve admitting steam to tank jacket or lights gas burners to maintain specified temperature of mix for prescribed time. Turns valve to drain liquid into flavor tank. Dumps sugar, salt, and other ingredients into tank according to formula, and turns valve to pump mixture to storage tank. Removes spent mash from mixing tank, using hoe, and dumps it into feed trough.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-130 FLAVOR ROOM WORKER (dairy products)
Tends equipment, such as blenders, roasters and grinders, and performs any combination of following tasks to prepare ice cream flavoring, coloring, and nut and fruit mixtures: Weighs or measures specified quantities of ingredients, such as syrup, sugar, water, butter, fruit pulp, fruit juice, salt, dye, and gelatin, using graduate. Dumps ingredients into blending vat. Turns valve and starts agitator to heat and blend contents for specified period. Opens valve to start flow of blend to storage vat, or moves it to processing unit, using handtruck. Fills hopper of nut grinder and turns knob to adjust teeth for desired grind. Dumps ground nuts into roaster and adjusts burner to roast them. Dumps prepared fruits into sieve to remove juice. Observes ingredients and removes foreign matter. Sprays containers and equipment with sterilizing solution to clean them. Maintains inventory of supplies.
GOE: 06.04.15 STRENGTH: H GED: R3 M2 L3 SVP: 4 DLU: 77

529.685-134 FRUIT-BAR MAKER (sugar & conf.)
Tends machine that grinds dried fruit preparatory to making natural fruit confections: Dumps mixed dried fruit, such as raisins, dates, figs, and prunes, into machine hopper and starts grinder. Places container at machine discharge outlet to receive ground fruit. Removes filled container and molds ground fruit into circular shape by hand. Cuts molded fruit into equal bars, using hand held cutting wheel. Places bars onto tray preparatory to coconut coating.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-138 HAM-ROLLING-MACHINE OPERATOR (meat products)
Tends machine that winds binding around boned hams: Threads binding string through winding shaft and starts machine. Impales boned ham on spiked pilot. Pushes lever to engage winding shaft with pilot and steps on treadle to wind string spirally around ham. Holds ham between hands during winding to maintain its round shape. Stops machine, cuts and ties string, and removes bound ham.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-142 HORSERADISH MAKER (can. & preserv.) alternate titles: horseradish grinder
Tends machines and equipment to wash, grind, mix, and bottle horseradish: Starts machine to wash horseradish roots. Dumps washed roots on floor. Holds root against rotating wire brush to remove skin and blemishes. Places container under discharge outlet of grinder, starts machine manually, and feeds roots into grinder hopper. Turns valve to fill mixing machine with vinegar to specified level. Dumps ground horseradish into mixer and starts machine. Tilts mixer, or ladles out mixed horseradish into containers. Loads horseradish into hopper of filling machine, and starts machine. Holds jars under filling spout that deposits measured amount of horseradish in jar. Manually caps and labels jars. May dump horseradish roots into washing machine.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-146 ICE CREAM FREEZER ASSISTANT (dairy products) alternate titles: freezer assistant
Assists FREEZER OPERATOR (dairy products) to freeze and package ice cream, performing any combination of following tasks: Pours cans of fruit into sieve to separate juice. Places cans of chocolate coating into hot water vat, pushes barrel into mechanical heating unit, or adds specified amount of water to chocolate to increase its fluidity. Measures specified kinds and amounts of ingredients, such as ice cream mix, flavor, and color. Starts pump, or dumps ingredients into flavor-mix tanks to maintain continuous flow of mix into freezer. Adjusts guides or controls of automatic carton forming, filling, and wrapping machines. Shapes and feeds carton blanks, bottoms, and rims into carton forming machine [CARTON-FORMING-MACHINE OPERATOR (any industry)]. Holds bulk carton under filler head or places it on mechanical filling platform to fill carton with ice cream. Weighs carton. May mix ingredients, such as fruit juice, color, water, flavor, sugar, citric acid, and stabilizers to make mix for frozen ice confections. When tending flavor tanks, may be known as Flavor-Tank Tender (dairy products). Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-150 ICE CUTTER (food prep., nec)
Tends machines that crush, shave, cut, or cube ice: Pulls blocks of ice into working area with tongs, and breaks ice into chunks, using ice pick or pronged bar. Feeds ice into hoppers of crushing or shaving machines. Places bag under discharge chute and pulls lever to fill bag with crushed or shaved ice. Ties wire around bag, marks weight on bag, and slides bag into storage room. Cuts blocks of ice to specified size, using handsaw, power saw, or heated shear-blade. Pushes sections of ice over series of rotating saws that cut it into layers, rows, and cubes. May be designated according to work performed as Cube Cutter (food prep., nec); Ice Crusher (any industry).
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-154 LABORER, STARCH FACTORY (grain-feed mills)
Tends equipment, such as grinders and mixers, and performs any combination of following tasks to convert vegetables and grain, such as potatoes, corn, and wheat, into starch: Transports grain or vegetable from storage, using lift truck, opens sacks, and dumps materials into chute or conveyor leading to grinding mill. Tends hammermill that removes foreign matter and grinds grain or vegetable into particles to form starch paste. Turns valves and starts pumps and paddle agitators to transfer starch solution to settling vat, flush impurities from surface of solution, using water hose, drain water, and mix fresh water with settled starch. Adds and mixes chemicals to starch milk as directed. Starts pump, centrifuges, and driers to remove excess moisture from white (purified) starch. Fills and weighs bags of dried starch and transports bags to storage, using lift or handtruck. May be designated Door Slinger (grain-feed mills) when opening and closing lever-actuated doors of starch kiln.
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-158 LARD REFINER (meat products; oils & grease)
Tends equipment that cooks animal fat, and filters and bleaches oil: Cooks fat in steam-jacketed kettle. Turns valve to admit rendered oil to agitator tank. Starts agitator, and turns valve to heat tank. Dumps specified amount of fuller's

earth (bleaching agent) into tank. Turns valves to transfer oil through filter drums into storage tank. May add preservative solution to lard in mixing tank and press button to blend ingredients. May be designated according to material handled as Oleo-Hasher-And-Renderer (oils & grease).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-162 LINKING-MACHINE OPERATOR (meat products)
Tends one or more machines that automatically tie stuffed casings into links to form meat products, such as frankfurters, sausages, and wieners: Threads string into tying mechanism of machine and turns screws to regulate length of links. Starts machine and feeds end of stuffed casing into machine. Hangs string of linked casings on racks or rods for transfer to smokeroom.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-166 MEAT BLENDER (can. & preserv.)
Tends machinery that grinds and mixes frozen meat with water according to formula for use in baby food: Opens cartons of specified weight meat and places specified weight into automatic dumping mechanism of grinder. Turns valves and presses buttons to start grinder, conveyor, mixing machine, and pump that grind and blend meat with specified amount of water, and transfer mixture to storage tanks. Observes conveyor to prevent jamming and rakes meat from jammed conveyor into mixing machine. Occassionally weighs, cuts, and adds additional chunks of meat into grinder to meet batch weight specifications, using platform scale and electric bandsaw. Records batches processed.
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

529.685-170 MOISTURE-MACHINE TENDER (tobacco)
Tends moisture-machine that automatically moistens filler tobacco preparatory to processing: Pushes button to start automatic machine which forces prongs through boxes of tobacco to release preset amount of steam. Observes gauges to ensure that specified amount of steam pressure is maintained. Stops machine and notifies superviser of machine malfunctions.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-174 NUT ROASTER (can. & preserv.) alternate titles: cooker; oven roaster; roaster
Tends equipment that roasts, blanches, and cleans shelled nuts: Sets temperature and time controls on oven for roasting process. Fills trays with nuts by hand and places trays in oven, or dumps nuts into feeder bin of screen conveyorized cooker or rotary drum in oven. Removes sample of nuts from oven, using spoon, compares nuts with color standard, and adjusts time and temperature controls of oven to ensure specified roasting. Removes specified number of trays of roasted nuts from oven for further processing, or pulls lever to empty roasted nuts from rotary oven into bin. Smooths out nuts in bin, using rake. Pushes bin over forced draft air vent to cool nuts. Tilts bin by hand or by hoist to dump cooled nuts into hopper of machines that remove skins, sprouts, stones, shell particles, and dirt, and starts machine. May immerse and roast nuts in hot oil bath. May coat nuts with liquid gum arabic prior to roasting to provide adhesive surface for salt. May sprinkle nuts with salt, garlic, cheese, or other seasonings by hand or by using automatic equipment. May pack nuts in bags or sacks. May be designated according to kind of nut roasted as Almond Roaster (can. & preserv.); Peanut Roaster (can. & preserv.); or according to whether oil is used as Dry Roaster (can. & preserv.); Wet Roaster (can. & preserv.).
GOE: 06.04.15 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

529.685-178 PEANUT-BUTTER MAKER (can. & preserv.; food prep., nec)
Tends machines that make peanut butter: Opens valves to fill mixing chamber with roasted nuts, and adds specified amounts of salt, sugar, and homogenizing ingredients. Observes gauges to determine if temperature in mixing chamber is within specified limits. Turns dial to regulate speed of pumps which force mixture through grinding chambers. Opens valves to allow mixture to flow from one grinding chamber to another to obtain specified texture, and transfer ground mixture into cooling mixer. May tend automatic equipment that roasts nuts, fills, labels, and caps containers, and packs containers in shipping cartons.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

529.685-182 PLUG-CUTTING-MACHINE OPERATOR (tobacco) alternate titles: plug-cutter; plug-cutting-and-wrapping-machine operator
Tends machine that cuts plugs of chewing or smoking tobacco into plugs of specified size for retailing: Loads plugs into hopper that discharges plugs onto conveyor leading to knives. Starts flow of flavoring onto knives or wipes knives with cloth dipped in flavoring to lubricate cutters. May scrape cutting knives with blade to remove tobacco particles. May tend cellophane-wrapping machine in tandem with cutter. May pack plugs in cartons manually.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-186 PLUG-OVERWRAP-MACHINE TENDER (tobacco)
Tends machine that wraps lumps of chewing tobacco in *homogenized leaf* prior to further processing: Mounts roll of homogenized leaf on holding rod of machine and guides leaf through rollers and under cutter. Pours glue into container. Starts machine and observes operation of machine to detect malfunctions. Stops machine when malfunction or jam-up occurs, and removes lump end leaf from machine to clear jam-up. Sprays machine parts with alcohol to prevent tobacco sticking and notifies mechanic when machine requires adjustment or repair.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

529.685-190 PRESERVATIVE FILLER, MACHINE (can. & preserv.) alternate titles: syruper
Tends machine that automatically dispenses brine, oil, salt, or syrup into containers of food products prior to lidding or capping: Starts machine and turns valves to allow flow of solution. Feeds or guides containers onto conveyor that carries containers under dispensing nozzles. Observes filling operation and adjusts flow of solution or material to optimum volume. Removes broken jars from conveyor and deposits jars in waste receptacles. May fill machine reservoirs with dry salt, oil, brine, or sugar solution as required. May be designated according to solution used as Briner, Machine (can. & preserv.); Oil Dispenser (can. & preserv.); Syruper, Machine (can. & preserv.).
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.685-194 RAW-JUICE WEIGHER (sugar & conf.)
Tends equipment that automatically weighs specified amount of raw sugarcane juice to fill processing tanks: Opens valves to admit juice and lime solution. Adds chemicals to solution to remove impurities. Takes samples of juice for laboratory analysis. Washes tanks, using water hose.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-198 REFINING-MACHINE OPERATOR (oils & grease)
Tends machine that refines crude oils, such as soybean, cottonseed, and peanut: Turns valve to pump oil and caustic solution from storage tanks into machine tanks as specified. Starts machine to separate caustic from oil by centrifugal force. Sets thermostat, observes gauges, and regulates valves to maintain prescribed temperature in wash and dryer tanks. Turns valves to pump mixtures to wash and dryer tank to remove byproducts with water, and impurities with heat. Turns valve to pump refined oil to storage tanks. Cleans bowls, using water and steam. May test samples of crude and refined oil to determine specific gravity and free fatty acid content, using hydrometer and refractometer. May be designated according to type of machine tended as Sharples-Machine Operator (oils & grease).
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

529.685-202 RENDERING-EQUIPMENT TENDER (meat products)
Tends equipment, such as cooking tanks, expellers or presses, driers, grinders, auxiliary pumps, and conveyors to render and process offal for use as plant and animal foods, performing any combination of following tasks: Opens valves and starts pumps and conveyors to move materials through rendering process. Observes temperature gauges and rate of flow and condition of materials passing through cookers, expellers, and grinders, and adjusts valves and rate of flow. Shovels or dumps guts, bones, and other inedible or condemned parts of slaughtered animals into chute leading to grinder and cooking tanks. Drains oil from surface of cooked offal and opens tank discharge to drop cooked material into trough leading to expellers. Starts grinding and screening equipment to pulverize and sift tankage, cracklings, and cooked blood for sacking. Hangs sack on discharge hopper of screening equipment and opens gate to discharge specified amount of material into sack. Ties or sews mouth of sack. May be known according to specific work performed as Cooker And Presser (meat products); Crackling-Press Operator (meat products); Oil-Expeller (meat products); Press Operator (meat products); Tallow Pumper (meat products); Tankage-Grinder Operator (meat products); Tank Charger (meat products).
GOE: 06.04.15 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

529.685-206 RESERVE OPERATOR (tobacco)
Relieves workers on fresh-work cigar machine: Feeds filler tobacco to machine [FILLER FEEDER (tobacco)]. Tends unit of machine that cuts and feeds binder leaves [BINDER LAYER (tobacco)]. Tends unit that cuts and feeds wrappers [WRAPPER LAYER (tobacco)]. Inspects finished cigars [FRESH-WORK INSPECTOR (tobacco)].
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-210 SANDWICH-MACHINE OPERATOR (dairy products)
Tends machine that forms and wraps ice cream sandwiches: Attaches tube lines from freezer machine to ice cream forming head, using wrench. Assembles dispenser trays, wafer extruders, sandwich pusher, paper tucker, and elevator table to form sandwich of specified size. Threads roll of wrapping paper from spindle through guide rolls to wrapping box. Turns tension screws to obtain desired size wrapper. Starts machine and turns valve to start flow of ice cream from freezer through forming head past wafer extruders. Observes formed ice cream ribbon as it is automatically enclosed with wafers, cut at specified intervals, and wrapped. Turns valve and stops machine to remove jammed or defectively formed and wrapped sandwiches. Turns handwheel or presses jogging button to alter position of elevator table or wrapping paper to correct jam. May replace worn electrical or mechanical parts.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

529.685-214 SHELLFISH-PROCESSING-MACHINE TENDER (can. & preserv.)
Tends washing, blanching, steaming, brining, peeling, or shucking machine that prepares shellfish for canning, freezing, or fresh packing: Opens valves to admit water, steam, or air under pressure into machine vats, and adds specified quantities of additives, such as salt or food coloring. Lowers baskets of shellfish into vats by hand or hoist, or pushes cars of shellfish into steamer chamber. Closes door of steamer chamber, clamps fasteners over edges of door, and turns wing nuts to secure door. Starts conveyors that move product through machines

or into weighing carts. May turn screws to adjust tension of peeler, using wrench. May tend machines that slice, grind, and tenderize clam meat. May be designated according to machine tended as Clam-Shucking-Machine Tender (can. & preserv.); Shrimp-Peeling-Machine Tender (can. & preserv.); or by shellfish processed as Clam Steamer (can. & preserv.); Crab Steamer (can. & preserv.); Oyster Washer (can. & preserv.); Shrimp Blancher (can. & preserv.).
GOE: 06.04.15 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 78

529.685-218 SPICE FUMIGATOR (food prep., nec)
Tends equipment that fumigates incoming shipments of spices to kill insects: Stacks sacks, boxes, and cartons of spices in fumigating tank; or moves loaded pallet into fumigating room, using handtruck. Starts exhaust pump or opens valve on carbon dioxide pressure cylinder to remove or force air from fumigating tank or room. Pours specified quantities of liquid fumigants, such as ethylene oxide, into container in fumigating tank; or opens valve on pressure cylinder to admit specified amounts of gaseous fumigant into tank or room. Opens ventilating valves and starts vacuum pump or blower to remove fumigants after specified time. Removes spices from fumigating tank or room. May be required to hold fumigator's license issued by local health department.
GOE: 06.04.15 STRENGTH: H GED: R3 M2 L2 SVP: 2 DLU: 77

529.685-222 SPREADER OPERATOR, AUTOMATIC (tobacco) alternate titles: strip feeder
Tends machine that spreads tobacco evenly onto conveyor belt. Places saratoga filled with tobaccco on hydraulic lift and starts machine. Pulls lever to hoist saratoga and dump tobacco into hopper of machine where prong-studded shaft fluffs tobacco and spreads tobacco evenly onto conveyor belt. Cleans tobacco from prongs of shaft.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-226 STEAMER (beverage) alternate titles: soaker-soda worker; soda worker
Tends equipment to maintain caustic soda solution and water levels and temperatures in bottle washing machine: Observes thermometers and gauges, and turns valves to heat soda solution and water to specified temperatures and fill compartments of bottle-washing machine to specified levels. Collects sample of soda solution for laboratory analysis. Opens valve to allow used soda solution to drain into reclaiming tank. May maintain water and temperature levels in pasteurizer and label machines.
GOE: 06.04.39 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-230 STEM-DRYER MAINTAINER (tobacco)
Cleans redrying machines and keeps tobacco-stem offal removed from shaker-screen: Pulls dust pans from redryers and empties pans into box. Blows dust and fine scrap from under machines and work area, using airhose. Pushes full boxes of offal from shaker-screen to collecting point and replaces full box with empty one. Beats dust from canvas dust-collecting tubes, using wooden stick.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-234 SUCKER-MACHINE OPERATOR (sugar & conf.) alternate titles: lollypop-machine operator; lollypop maker
Tends machine that automatically forms lollypops of specified shape on ends of wooden sticks: Turns steam valve to heat candy hopper or rollers of candy-spinning unit. Pours candy into machine hopper and fills receptacle with sucker sticks. Monitors and adjusts machine to prevent jamming.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 3 DLU: 77

529.685-238 TABLET-MACHINE OPERATOR (dairy products)
Tends machine that compresses malted milk powder into tablets: Dumps powder into hopper, using scoop, and starts machine. Moves hopper lever to deposit specified amount of powder into forming dies in machine table. Examines tablets to determine thickness and hardness, and turns wheel to adjust positions of forming dies and punch dies in machine head.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-242 TANK PUMPER, PANELBOARD (beverage)
Tends central control panelboard, connected to series of pumps and hose lines, to transfer whiskeys from storage tanks to bottling tanks: Connects hose lines from panelboard to series of electric pumps with lines connected to storage tanks and bottling tanks. Starts pumps and turns valves on panelboard to transfer and regulate flow of whiskey from storage tank to bottling tank. Reads meters on panelboard to ascertain when tanks are filled. Turns valves on panelboard to admit compressed air through valves and hose lines to clear excess whiskey from lines. Collects whiskey samples for laboratory analysis.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-246 TAPPER (beverage) alternate titles: dropper; dropper, tank storage
Tends equipment that taps (drains) beer storage tanks to maintain continuous flow of beer to filtering machine: Couples hose lines to pumps, tanks, and filtering machine. Observes meters and turns valves on gas tank to admit specified amounts of carbon dioxide into storage tank to create effervescence in beer, and to apply external pressure on tank to counteract internal stress. Observes gauge to determine when to turn valves to switch from empty to full tank. Opens valve to release counter pressure on empty tanks and uncouples hoses.
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

529.685-250 VOTATOR-MACHINE OPERATOR (meat products; oils & grease)
Tends one or more machines that cool liquid margarine, lard, or shortening, and knead solidified material preparatory to packaging: Starts kneading unit of machine. Opens valve to admit liquid material to cooling unit that solidifies it and to transfer solids to kneading unit that imparts smooth texture. Observes gauges and adjusts controls to keep specified temperature and pressure of material in cooling and kneading units. Turns valves to regulate flow of processed material into hoppers of packaging machine. May clean lines and equipment, using pressurized steam and nitrogen gas.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-254 WASH-HOUSE WORKER (beverage)
Tends equipment to clean and spray interiors of aluminum or steel beer barrels or kegs, performing any combination of following tasks: Tends drilling machine to remove plastic or wood cork from bunghole. Lifts barrel onto conveyor for transfer to washing or pitching machine. Tends washing or pitching machine that cleans or coats barrels with pitch. Observes gauges and thermometers and turns valves to maintain temperatures at specified operating levels. Dumps bags of pitch into machine pots. Screws metal plugs into tap and bungholes. Unscrews plugs from pitched barrels, wipes holes with rags to remove excess pitch, and hammers cork into taphole. Inserts light into barrel and inspects interior surfaces for dents, holes, dirt, and completeness of pitch coverage. Loads and unloads conveyors. Stacks barrels on floor.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-258 WASHER, AGRICULTURAL PRODUCE (agriculture; can. & preserv.; sugar & conf.; wholesale tr.)
Tends machine that washes raw fruits or vegetables, preparatory to processing, canning, freezing, or packing: Opens valve to fill machine with water and adds prescribed cleaning agents. Dumps raw fruits or vegetables into machine hopper and starts conveyor that carries produce through machine. Drains, cleans, and refills machine at designated intervals. May lubricate machine and make minor repairs. When operating washer with waxing unit attached, may be designated Washing-And-Waxing-Machine Operator (agriculture; wholesale tr.). May be designated according to commodity washed as Apple Washer (agriculture; can. & preserv.; wholesale tr.); Carret Washer (agriculture; can. & preserv.; wholesale tr.); Orange Washer (agriculture; can. & preserv.; wholesale tr.).
GOE: 06.04.39 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-262 WHEAT CLEANER (grain-feed mills) alternate titles: bump-grader operator
Tends equipment that cleans, moisturizes, and cracks wheat for cereal products, preparatory to cooking: Starts conveyors to transfer wheat from storage to vibrating screens in grading and cleaning units. Sets thermostat at specified temperature to heat water used to wash grain and increase moisture content to designated value. Turns valves and moves controls to regulate flow of water and grain through washer and soaking bin and to transfer grain to grinder rolls for cracking. Observes process to correct conveyor jamming and to open plugged holes in separator screens.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529.685-266 WRAPPER LAYER (tobacco) alternate titles: fresh-work wrapper-layer; long-filler-cigar roller, machine
Tends unit of fresh-work cigar machine that cuts wrapper leaf and wraps leaf around bunch: Spreads wrapper leaf over die of machine. Presses pedal to lower knife that cuts leaf. Releases pedal to raise knife and start mechanism that removes cut leaf and wraps it around bunch. Pastes portion of leaf over holes or tears to patch wrapper leaves.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.685-270 WRAPPER-LAYER-AND-EXAMINER, SOFT WORK (tobacco) alternate titles: scrap-filler-cigar roller, machine; shredded-filler cigar-maker, machine; shredded-filler-machine wrapper-layer; soft-work-cigar-machine operator
Tends soft-work cigar machine (turret machine) that rolls wrapper tobacco leaves around bunches to make cigars: Lays wrapper leaf on die of machine and presses treadle to lower knife that cuts leaf and to activate mechanism that draws cut leaf into machine and rolls leaf around bunch. Inspects finished cigars for defects as cigars emerge from machine. Pastes portions of leaf over holes or tears in wrappers. Discards defective cigars that cannot be repaired. Works in conjunction with BUNCH MAKER, MACHINE (tobacco) who supplies bunches to machine.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.685-274 X-RAY INSPECTOR (can. & preserv.; tobacco) alternate titles: fluoroscope operator
Inspects packaged tobacco products or jars of baby food to detect foreign matter, using x-ray equipment: Activates equipment and conveyor. Observes shadows cast on fluorescent screen by package or jar passing in front of x ray which indicates presence of foreign matter, such as sticks, stems, metal, or dirt. Removes defective packages or jars.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.685-278 YEAST WASHER (food prep., nec)
Tends equipment that washes, pasteurizes, and cools yeast cream (concentrated yeast suspension) used in manufacture of baker's yeast and yeast food: Opens valve to pump yeast cream into tank, and adds water to yeast cream to remove traces of wort adhering to yeast cells. Pumps yeast cream and wash water to storage tank preparatory to centrifugal separation. Turns valves to admit steam into jacket of pasteurizer and circulate brine through cooling

coils of cooler. Pumps yeast cream, that has been washed and separated from wash water, to pasteurizer and through cooling equipment to storage tank. Tests cream for acidity, using pH meter, and adds necessary chemicals to attain required acidity level.
GOE: 06.04.15 STRENGTH: L GED: R3 M2 L3 SVP: 2 DLU: 77

529.685-282 CAN-FILLING-AND-CLOSING-MACHINE TENDER (can. & preserv.)
Tends machines that automatically wash, fill, and seal cans in cannery: Pushes buttons and levers on control panel to start machines and monitors machine operations to verify that can washer, can food and liquid filler, can sealer, and conveyor mechanisms function in prescribed sequence. Observes cans leaving machines to detect defects, such as overfilled cans or misaligned lids. Pushes buttons to stop machines when machines malfunction, and notifies MAINTENANCE MECHANIC (any industry) 638.281-014 of detected defects.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 86

529.685-286 CIGAR-WRAPPER TENDER, AUTOMATIC (tobacco)
Tends machines that automatically encase tobacco filler in layers of *homogenized leaf* tobacco to form cigars: Places rolls of homogenized leaf on spindles and guides leaf through tension guides and rollers of machine. Starts machine that automatically wraps filler with binder, mouth end of cigar with reinforcing band, and bunch with wrapper leaf to form cigar. Observes machine operation to detect malfunctions. Turns setscrews to adjust feed rate and stops, and clears machine when jam-up occurs. Examines cigars discharged from machine for defects, such as holes, tears, and insufficient filler, and for conformity to size specifications. Loads inspected cigars into storage containers.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 86

529.685-290 COOK, SOYBEAN SPECIALTIES (food prep., nec)
Tends equipment that processes soybeans to make soymilk, tofu, tempeh, and related products: Pours specified quantity of presoaked soybeans into mill hopper and depresses button to start grinding of beans and flow of bean mash into steam-jacketed cooker. Adds specified amount of water to mash and stirs mash to prevent burns and boilovers, using paddle. Sprays cooker exterior with water to maintain temperature in acceptable range. At end of prescribed time, turns valve to allow mash to flow into filter-lined hydraulic press tub. Depresses controls to actuate press that expresses soymilk from mash and pumps milk into vats. Heats and injects additives into soymilk to form curd, using syringe, skims off and discards surface residue, using ladle, and places weights on curd to express whey from curd to form tofu. Adds flavorings and stabilizers to soymilk and cooks and freezes mix, using steam cooker and freezing machine, to make soy ice cream. Cooks whole soybeans, mixes tempeh mold with cooked rice to make tempeh starter, and mixes incubated starter with cooked soybeans to form tempeh. Fills packaging containers with product, following prescribed procedures. May blend and cook bean mash or processed soy products with other ingredients to prepare ready-to-eat packaged foods. May be designated according to product prepared as Soyfreeze Operator (food prep., nec); Tempeh Maker (food prep., nec); Tofu Maker (food prep., nec).
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 86

529.686-010 BUNDLES HANGER (tobacco) alternate titles: hands hanger
Hangs bundles of tobacco on sticks moving on chain conveyor to redrying machine: Removes bundles from table and observes color shade. Spreads leaves of bundle to form opening and hangs bundle on stick conveying bundles of similar color shade. May shake bundles that have been packed in hogsheads to loosen leaves prior to hanging bundles on stick [SHAKER (tobacco)].
GOE: 06.04.40 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

529.686-014 CANNERY WORKER (can. & preserv.)
Performs any combination of following duties to can, freeze, preserve, or pack food products: Dumps or places food products in hopper, on sorting table, or on conveyor. Sorts or grades products according to size, color, or quality. Feeds products into processing equipment, such as washing, refrigerating, peeling, coring, pitting, trimming, grinding, dicing, cooking, or slicing machines. Trims, peels, and slices products with knife or paring tool. Feeds empty containers onto conveyor or forming machines. Fills containers, using scoop or filling form, or packs by hand [PACKAGER, HAND (any industry) 920.587-018]. Counts, weighs, or tallies processed items according to specifications. Inspects and weighs filled containers to ensure product conforms to quality and weight standards. Places filled containers on trays, racks, or into boxes. Loads, moves, or stacks containers by hand or handtruck, and cleans glass jar containers, using airhose. May be designated according to work performed as Dumper (can. & preserv.); Peeler (can. & preserv.); Sorter (can &preserv.); Trimmer (can & preserv.).
GOE: 06.04.15 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 78

529.686-018 CIGARETTE-MAKING-MACHINE-HOPPER FEEDER (tobacco)
Pushes box truck filled with cigarette tobacco to cigarette-making machine, and feeds double handful of tobacco into hopper.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-022 CUTLET MAKER, PORK (meat products)
Feeds machine that shreds and presses pork into cutlets: Cuts strips of pork into pieces, using knife. Dumps cut meat into feed hopper of machine that automatically shreds meat, presses shredded meat into cutlets, and stacks cutlets on waxed paper dividers. Weighs and packs cutlets into cardboard carton on weighing scales, according to work ticket specifications. Seals carton, using pneumatic staple gun.
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-026 DAIRY HELPER (dairy products)
Performs any combination of following tasks in dairy: Scrubs bottles, pipes, fittings, and machines with chemical solution, using brush. Attaches pipes and fittings to machines, using wrenches. Examines canned milk for dirt and odor, and dumps milk into receiving tank. Dumps milk, cream, butter, cottage cheese, and powdered milk into machine hoppers. Starts and stops machines and equipment. Cuts butter and cottage cheese, using knives. Wraps butter prints in foil or parchment and seals them with hot iron. Packs bulk butter into cartons. Pulls lever on hopper to fill cartons or bags with powdered milk. Weighs containers on scale. Places bottles, cartons, and packages into container, and moves to storage, using handtruck. Dumps empty bottles, cases, and cans onto conveyor for transfer to receiving, washing, or filling stations. May be designated according to product handled as Buttermaker Helper (dairy products); or stage of treatment as Pasteurizer Helper (dairy products).
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

529.686-030 EGG WASHER, MACHINE (agriculture; wholesale tr.)
Feeds eggs into machine that removes earth, straw, and other residue from egg surface prior to shipment: Places eggs in saucer-like holder that carries eggs into machine where rotating brushes or water sprays remove residue. Removes cleaned eggs from discharge trough of machine and packs eggs in cases for shipment.
GOE: 06.04.39 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

529.686-034 FACTORY HELPER (sugar & conf.) alternate titles: general utility helper
Feeds candy processing and packaging machines and performs any combination of following tasks in candy manufacturing establishment, working individually or as interchangeable member of crew: Feeds one or more candy processing or packaging machines. Off bears, separates, counts, or culls finished or unfinished confectionery items and ingredients. Transfers molds, trays of candy, and supplies between storage, processing, and packing areas, using dolly or handtruck. Fills bags with bulk items, inserts toys or prizes in containers, and packs, labels, or wraps cartons for shipment. Assembles or forms confectionery items on assembly line or table, performing duties, such as pressing candy onto wafers to make candy waffles, and sprinkling sugar onto gum candy prior to cutting. Empties, cleans, or brushes molds, trays, utensils, containers, and equipment used in cooking, forming, and cooling candy. May be designated according to equipment fed as Raisin-Separator Operator (sugar & conf.); worker assisted as Coating-Machine Helper (sugar & conf.); material or product handled as Scrapper (sugar & conf.); or specific task as Steamer, Gum Candy (sugar & conf.); Vanilla-Chocolate-Coin Counter (sugar & conf.). When filling trays or vats with melted chocolate, fondant, or icing to facilitate work of hand dippers, is designated Table Filler (sugar & conf.). May be designated: Candy-Bar-Core Inspector (sugar & conf.); Candy Catcher (sugar & conf.); Candy Separator, Hard (sugar & conf.); Candy-Spreader Helper (sugar & conf.); Candy-Waffle Assembler (sugar & conf.); Caramel-Cutter Helper (sugar & conf.); Cut-Roll-Machine Offbearer (sugar & conf.); Cutting-Machine-Operator Helper (sugar & conf.); Lozenge-Maker Helper (sugar & conf.); Marshmallow Packer (sugar & conf.); Pan Washer, Hand (sugar & conf.); Sanding-Machine Operator Helper (sugar & conf.); Syrup Crystallizer (sugar & conf.); Spinner Helper (sugar & conf.); Sugar-Coating Hand (sugar & conf.); Toy Sorter (sugar & conf.).
GOE: 06.04.15 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-038 FEEDER-CATCHER, TOBACCO (tobacco) alternate titles: chute feeder; conveyor feeder; hopper feeder
Feeds or off bears tobacco leaves, bundles, or strips to or from processing machine: Loads tobacco onto conveyor or into chutes or hoppers with hands, pitchfork, or shovel, or dumps tobacco from tubs or hampers onto conveyor, using hoist or hydraulic lift. Places containers at discharge end of conveyor to catch tobacco. Pushes containers onto scales. Starts and stops conveyors. May spray tobacco leaves with water to moisten tobacco for further processing. May be designated according to task performed as Packing-Machine Feeder (tobacco); Rack Loader (tobacco) II.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-042 FILLER FEEDER (tobacco)
Feeds filler tobacco into fresh-work cigar machine: Places filler tobacco in slot on conveyor of machine. Feels tobacco in slot to determine whether sufficient filler tobacco for cigar is in slot.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-046 GENERAL HELPER (sugar & conf.)
Feeds, weighs, mixes, and transports ingredients and performs any combination of following tasks to assist other workers in processing chocolate and cocoa products: Moves ingredients from storage to production area, using handtruck. Weighs and mixes ingredients under supervision of MIXER OPERATOR (sugar & conf.) and SYRUP MAKER (sugar & conf.). Removes and stacks cocoa cakes from cocoa press machine, and transports them to storage area. Positions filled mold pans on belt conveyor moving through cooling tunnel. Feeds chocolate sheets into shaker and hammer mill that break sheets into bits.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-050 LABORER, CHEESEMAKING (dairy products)
Makes and cures cheese, performing any combination of following tasks: Cuts curd with knife or harp or separates curd with scoop to release whey and

firm curd. Pushes curd to back of vat or center of kettle with rake. Inserts strainer in vat or kettle outlet, assembles pipe or hose, and turns valve to drain whey. Pulls dip cloth (cheesecloth) through kettle to remove curd, or banks curd to side of vat with hands or rake to drain residual whey and mat curd. Stretches matted curd in hot water, using paddle, and cuts, weighs, and hand molds resulting elastic curd to make Italian cheeses. Cuts matted curd into measured slabs, piles slabs into banks, and turns them over periodically to obtain specified acidity and moisture. Feeds slabs into mill that cuts curd into cubes. Spreads specified amount of salt over cubes. Scoops, weighs, and dumps curd into assembled cheese hoops (perforated forms) with bucket. Places hoops in automatic press, turns screw of wooden handpress or places and turns filled molds on wheying table to remove whey and shape cheese. Dumps molded cheese into brine tank and turns it periodically or wets and rolls cheese in salt bed to flavor cheese and develop rind. Hangs cheese in rope basket or places, turns, and raises cheese to varying shelf levels in temperature controlled or smoked room to develop flavor, texture, eye formation and body, and to dry cheese surface. Pierces cheese or smears with cultured wash to promote mold growth. Wipes surface with grease or oil to soften rind and stop mold growth. Stamps cheese with date, vat, and company number. Wraps cheese in foil and places in wood or paper box. May be designated according to working area as Brine-Room Laborer (dairy products); Cellar Laborer (dairy products).
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.686-054 LABORER, PIE BAKERY (bakery products)
Feeds automatic fruit peeling, coring, and slicing machine and performs any combination of duties involved in preprocessing fruit to be used in making pies and other bakery products: Feeds automatic machine that peels, cores, and slices fruit. Fills containers with sliced fruit from discharge conveyor or bin. Examines fruit and discards spoiled or damaged pieces. Manually loads and unloads trucks and transports material to and from storage areas, using handtruck. Cleans machines and work areas, using broom, mop, brush, scraper, and rags.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.686-062 LONG-GOODS HELPER, MACHINE (food prep., nec) alternate titles: spaghetti press helper
Feeds and off bears macaroni containers on and off macaroni press, drier conveyors, and stick-handling equipment: Lays empty sticks (macaroni holders) on stick filler-feeder machine. Aligns out-of-line sticks moving along drier conveyor. Lifts sticks filled with moist macaroni into drier racks. Pushes racks into drying chambers. Fills, carries, and sets boxes of macaroni trimmings on drier shelves. Cleans and lubricates press and conveyor parts. May assist PRESS TENDER (food prep., nec) to install and remove macaroni press parts such as screw feeders, tubes and dies.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.686-066 PRESS MACHINE FEEDER (tobacco)
Feeds cigars into pressing machine that heats and presses cigars into square shape preparatory to banding and cellophaning. Removes cigars from handtruck and places cigars onto feed device of pressing machine.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-070 PRODUCTION HELPER (can. & preserv.; food prep., nec) alternate titles: general production worker
Feeds machine hoppers with ingredients, transports and packs finished products, and performs any combination of following tasks in food processing and packaging establishment: Dumps prepared ingredients into hoppers of grinding and mixing machines. Transfers finished products and raw materials about plant and warehouse, using handtruck. Stacks processed food in warehouse and coolers. Packs food products in paper bags and boxes. Loads packaging machines with bags, cans, and jars. Verifies weights of filled containers emerging from packaging machines. Removes foreign material from food on conveyor belts. Sprinkles grated cheese and other flavoring on foods.
GOE: 06.04.15 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.686-074 RACK LOADER I (tobacco) alternate titles: stick feeder
Removes sticks on which tobacco hands have been hung from conveyor of hanging machine and loads them on racks or onto conveyor leading to tobacco-drying machine. Pushes filled rack from work area and replaces with empty rack.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-078 RAW-CHEESE WORKER (dairy products)
Cuts out or scrapes mold, wax, and sediment to prepare natural cheese for packaging or making into process cheese by performing any combination of following tasks in cheese processing department of a dairy: Removes covers and wrappers from cheese, using knife, and dumps blocks of specified cheese from containers onto conveyor. Positions cheese block in conveyor cradle to expose desired surface and digs into plug holes or openings with knife. Removes mold, wax, and sediment from cheese surface, using handscraper or buffing wheel. Cuts cheese blocks into equal portions, using power wire cutter, power knife cutter, or wire. Places pieces of cheeses on truck, and weighs batch to obtain specified amounts for each cook. Dumps cut pieces of cheese into machine that grinds and transports it to next work station.
GOE: 06.04.28 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

529.686-082 STEAK TENDERIZER, MACHINE (meat products)
Feeds steaks into machine to tenderize meat. Places tenderized meat on paper separators and stacks them in piles for packaging.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.686-086 UTILITY WORKER (sugar & conf.)
Feeds machines that apply sugar coating and score (partially cut) sheets
chewing gum, preparatory to separating them into sticks, performing any co
bination of following tasks: Fills hopper of machine that automatically co
gum with powdered sugar to add flavor and prevent gum from sticking to r
ers of scoring machine. Sprinkles sugar by hand on sheets of gum that are in
equately coated. Inspects sheets of gum for surface or scoring imperfections
removes defective sheets for reprocessing. Stacks empty trays on conveyor
sembly that automatically fills trays with sheets of scored gum and stacks fil
trays.
GOE: 06.04.15 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-010 BASKET FILLER (can. & preserv.)
Removes sealed cans or jars of food products from conveyor and dumps
stacks them in metal basket. May load basket in layers, using hydraulic mec
nism to lower each layer to table level. May move baskets within plant
through cooling tank, using trucks or hoist.
GOE: 06.04.40 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

529.687-014 BIN CLEANER (beverage; grain-feed mills)
Scrapes, scours, and fumigates interior of grain bins: Climbs into grain
or lowers self into bin on scaffolding or bucket seat, using block and tac
Cleans interior of bin, using hand scrapers and brushes. Sprays interior of
with insecticides and rodent deterrents or poisons, using spray gun. Closes b
for specified length of time. Airs bin and marks it for use. Places rodent tr
and powders in designated areas in elevator. Maintains inventory of insectici
and rodent control supplies.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-018 BOX-TRUCK WASHER (meat products)
Cleans box-trucks (four-wheeled handtruck) used to move or store m
grease, oleo, or inedible fat, using scrapers, wire brushes, handbrushes, ste
water, and detergent. May clean offal trays with water spray and rags and lu
cate handtrucks with paraffin oil, using spray gun.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

529.687-022 BULK FILLER (can. & preserv.)
Fills wooden tubs, barrels, or containers with processed food products
covers with preservatives to preserve contents: Dumps food into barrel, tub,
container, and adds prescribed amounts of preservatives, such as salt, su
brine, syrup, or vinegar. Covers container with lid, waxed paper, or plas
May weigh contents of container. May apply labels to outer surface of c
tainer. May be designated according to container filled as Barrel Filler (c
& preserv.); or product treated as Cabbage Salter (can. & preserv.).
GOE: 06.04.28 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

**529.687-026 CASING GRADER (meat products) alternate titles: cas
inspector; casing sorter; casing tester**
Inspects and grades animal casings used as sausage skins: Removes casi
from soaking tank. Cleans and inflates casing, using air or water hose. Pla
inflated casing between grading pegs to determine size. Squeezes casing to
tect changes in circumference, damaged sections, or slime. Cuts out damag
sections, warts, and other blemishes, using knife. Places casings in rack or c
tainer according to size or condition of casing. May measure and cut casi
to length. May pack and salt casings for shipment or reclaim cured casings
use.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

**529.687-030 CASING SEWER (meat products) alternate titles: b
sewer**
Sews sections of animal intestine to form casings for lunch meat and s
cialty meat products: Positions edges of dried intestines together, places str
of paper (liners) over intestines, and slides them under presser foot of sew
machine. Starts machine, and stitches edges of liner and end of intestines
form casings. Maintains count of casings sewed for company records. May
spect and grade casings [CASING GRADER (meat products)].
GOE: 06.04.28 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

**529.687-034 CASING TIER (meat products) alternate titles: stuffed-c
ing tier**
Closes ends of empty and filled meat casings with metal clips and string p
paratory to hanging them for smoking or cooking: Attaches metal clip to
end of empty casing, using clipping tool. Twists open end of filled casing
ties it with string leaving loop for hanging. Cuts off excess string and casi
using scissors or knife. May be designated according to type of meat cased
Bulk-Sausage-Casing Tier-Off (meat products); Canadian-Bacon Tier (m
products); Hog Stomach Preparer (meat products). May tie lacing cord at re
lar intervals around bologna sausage to brace and support casing and be d
ignated Bologna Lacer (meat products); or lace rolled ham and be designa
Rolled-Ham Lacer (meat products).
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

529.687-038 CHAR-DUST CLEANER AND SALVAGER (sugar & con
Cleans floors and equipment, and performs following duties in char-hou
Cleans and collects char dust from floors, pump basins, pipelines, and t
tops. Observes operating machinery, such as char-draw mechanisms, spread
and char-collectors, for blockades or malfunctioning, and reports irregulari

to superiors. Fills sacks with salvaged char dust and sews, weighs, and stores sacks. Obtains samples of char and takes them to laboratory for analysis. Delivers requisitions, runs errands, and supplies filter blankets and wedges to other workers.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-042 CIGAR INSPECTOR (tobacco) alternate titles: cigar-packing examiner; final cigar and box examiner
Inspects cigars for imperfections and verifies quality of packing and labeling: Examines cigars for size, shape, and imperfections in wrappers. Replaces defective cigars in boxes. Examines banded and cellophane-wrapped cigars to determine whether bands are positioned and cellophane is applied according to standards. Observes boxes of cigars to determine whether label is in specified position. May open lid of box to inspect cigars and close and nail lid onto box after inspection, using handtool.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-046 COFFEE WEIGHER (food prep., nec)
Weighs sacks of specified varieties of coffee and dumps coffee into chute leading to coffee-cleaning or blending machines. May record sack weights.
GOE: 06.03.02 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

529.687-050 COOK HELPER (can. & preserv.)
Assists COOK, KETTLE (beverage; can. & preserv.; grain-feed mills) to cook food products, such as juices, meats, fruits, or preserves, preparatory to canning or preserving, performing any combination of following duties: Weighs or measures ingredients, such as sugar, salt, meat, lard, berries, or fruit, according to formula, using platform scale, weighing hopper, and measuring containers. Transfers materials to cooking area by hand or handtruck. Turns valves to admit steam to kettle-heating jacket, and dumps ingredients into kettle to precook or melt them. Cleans cooking kettles and containers, using water and pressurized steam. May stir contents of cooking kettle with paddle and skim off foam or foreign materials, using ladle or spoon. May stack and tally containers. May be designated according to food product being processed as Cook Helper, Fruit (can. & preserv.); Cook Helper, Juice (can. & preserv.); Cook Helper, Meat (can. & preserv.); Cook Helper, Preserves (can. & preserv.). Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.28 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

529.687-054 COOKER CLEANER (can. & preserv.) alternate titles: coil cleaner
Cleans coils and inside surfaces of steam kettles used for cooking foods: Climbs inside of kettle and scrubs coils and interior surface of kettle, using cleanser, steel wool, and soap. Opens drain valve at bottom of kettle and sprays water over interior of kettle to flush soap, steel wool, cleanser, and food particles through drain.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-058 DEFLECTOR OPERATOR (beverage) alternate titles: lights inspector; wine-bottle inspector
Inspects bottled beer or wine for foreign matter and defective bottles: Examines contents of bottles for foreign matter, such as dirt and barrel or tank sediment, and bottles for defects, such as cracks, damaged caps or corks, and nicks. Observes bottles on conveyor belt passing in front of light and reflecting mirror or lighted frosted glass box or holds bottles up to unshielded light bulb, to examine bottle and content. Stores rejected or defective bottles in containers for disposal.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-062 DIE CLEANER (food prep., nec)
Cleans dies used to extrude dough to form macaroni: Unbolts and removes dies from presses, using wrench and screwdriver, and places dies in tub of water to soften dough residue. Adjusts die-washing-machine platform to accommodate shape of die, positions die on platform, and turns faucet to force jets of water through dies. Scrapes dough residue from die holes, using handtool. Replaces dies on press or places dies on storage shelves. May inspect dies on presses for cleanliness or damage. May verify alignment of die pins, using preset gauge. May record location and condition of dies.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

529.687-066 DISTILLERY WORKER, GENERAL (beverage)
Cleans, transports and applies identifying data on steel drums in liquor distilling plant, performing any combination of following duties: Cleans interior of metal drums, using steam-cleaning apparatus, or interiors of barrels by rinsing them with water and alcohol. Stencils identifying information on barrelheads, using paint brush or spray gun to paint over cut-out stencils, or cuts identifying information on barrelheads, using metal dies and mallet. Paints or scrapes heads of used barrels to remove identifying information. Removes bungs from drums, using wrench or chisel and hammer. Rolls barrels into position for filling. Empties barrels or drums filled with liquor into dumping trough. Stamps serial numbers on barrelheads, using hand-stamping machine. Empties cartons of empty whiskey bottles on conveyor belt for filling. Stacks cartons filled with whiskey bottles. Repairs damaged cartons, using adhesive tape to cover tears and rips in cartons. Removes metal sealing rings from improperly labeled whiskey bottles preparatory to removal of labels. May be known according to specific work performed as Barrel Cutter (beverage); Barrel Roller (beverage); Barrel Scraper (beverage); Bung Remover (beverage); Carton Repairer (beverage); Drum Cleaner (beverage); Drum Sealer (beverage); Dumper (beverage).
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-070 DISTRIBUTOR-CLEANER (tobacco) alternate titles: floor hand
Cleans production department in tobacco processing plant and distributes tobacco to workers: Sweeps floors [CLEANER, INDUSTRIAL (any industry)]. Sorts stems from waste and puts stems in bin. Conveys tobacco to workers, using handtruck [MATERIAL HANDLER (any industry)]. Stacks tie-bands into tray and distributes tie-bands to workers.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

529.687-074 EGG CANDLER (any industry)
Inspects eggs to ascertain quality and fitness for consumption or incubation, according to prescribed standards: Observes eggs moving on conveyor over light, or holds eggs before shielded light or rolls them over lighted glass plate to render egg translucent. Observes shell color and texture, and internal characteristics, such as streaks, shadings, discolorations, size and position of yolk, and size of air cell. Places spoiled and substandard eggs in cases. Packs salable eggs in cartons or releases them on conveyor belt for packing by other workers. May break substandard eggs in container for further processing. May grade eggs according to size, shape, color, and weight and be designated Egg Grader (any industry).
GOE: 06.03.01 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-078 FILLER-SHREDDER HELPER (tobacco) alternate titles: filler-shredding-machine loader; filler-sifter helper
Assists FILLER SHREDDER, MACHINE (tobacco) to cut tobacco leaves into shreds and clean shredded tobacco for use as cigar filler. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-082 FISH-BIN TENDER (can. & preserv.)
Opens chute gates to release fish into various bins according to species, and onto conveyor for transfer to cleaning machine. Expedites flow of fish, using wooden rake, hoe, or water hose. Shovels chipped ice into bins to preserve fish. Sorts fish according to species and size, and discards spoiled or damaged fish.
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-086 FISH-EGG PACKER (can. & preserv.) alternate titles: bait packer
Cleans and packs fish eggs for commercial purposes: Rubs clusters of eggs over screen to separate eggs according to size. Dumps eggs into vat of cleaning solution to remove blood and into barrel of brine to cure eggs. Shovels processed eggs into containers for shipment, or fills jars with eggs, using scoop. Works as member of crew. May prepare curing and cleaning solutions, according to formula.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-090 FRESH-WORK INSPECTOR (tobacco) alternate titles: racker; selector; table inspector
Inspects cigars from fresh-work cigar machine to determine conformance to standards: Weighs random bundles of cigars to determine whether cigars are of prescribed weight and notifies SUPERVISOR, CIGAR-MAKING MACHINE (tobacco) when weight is not standard. Inspects cigars for broken tobacco wrappers, soft spots, defective patches, and variations from standard length and discards defective cigars. May place full boxes of perfect cigars in case.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

529.687-094 GENERAL HELPER (oils & grease)
Performs any combination of duties, such as carrying supplies to work area, forming cartons for packing, feeding cans onto conveyor, removing scrap, cleaning work area, and reclaiming oil stock from damaged containers. Dumps containers into steam tub, covers tub with canvas, and opens valve to introduce heat to melt and reclaim contents. Cleans work area using brooms, mops, and detergents.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-098 GRADER (can. & preserv.)
Examines, classifies, and separates seafood according to size, quality, color, condition, or species at receiving station or on conveyor line. May record grade on ticket and attach ticket to filled container. May be designated according to product graded as Clam Grader (can. & preserv.); Fish Grader (can. & preserv.).
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 78

529.687-102 GRADER, DRESSED POULTRY (meat products)
Examines and grades dressed poultry: Removes dressed poultry from conveyor, and examines color of skin, feels poultry for prescence of bruises, deformities, and pin feathers, and grades accordingly for quality and size. Sorts poultry into specified containers according to grade. May weigh filled containers and record weight of each grade of poultry.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.687-106 GRADER, GREEN MEAT (meat products) alternate titles: fresh-meat grader; pickling grader
Inspects and sorts pork cuts, such as hams, shoulders, bellies, and fatbacks, preparatory to curing: Examines and feels meat for defects, such as bruises, thickness of skin, shape, and broken leg bones. Segregates pork cuts not meeting standards. Weighs and segregates cuts according to weight and size. May

push thermometer into meat to ascertain if it is too cold for processing. May stamp government inspection seal on approved lean shoulders, using rubber stamp.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.687-110 GRAIN PICKER (grain-feed mills)
Separates and weighs samples of grain preparatory to grading: Pours grain sample into hopper of sample divider and pulls lever to allow grain to fall through divider into two receptacles. Removes and weighs specific amount of grain from each receptacle to obtain representative but reduced sample. Pours sample into cleaning mill (dockage tester) or through sieve of standard mesh to remove foreign matter. Smells and examines sample to determine if grain is sour or musty, or to detect damage from excessive heat or moisture. Pours grain sample into standard quart kettle, weighs sample, and reads conversion chart to obtain weight per bushel. Separates damaged, weathered, soil-stained, and undeveloped grain from grain with no defects and places grain in separate containers. May remove grain sample from incoming shipments.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

529.687-114 INSPECTOR (sugar & conf.)
Inspects candy or chewing gum in containers or on conveyor to ensure that it is formed, coated, cupped, wrapped, or packed according to plant standards: Weighs containers [WEIGHER, PRODUCTION (any industry) 929.687-062]. Rewraps, recups, rearranges, or replaces pieces not meeting standards. May stamp date of inspection on boxes or return them to packing department with reason for rejection. May pack boxes in shipping cartons.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

529.687-118 INSPECTOR, CANNED FOOD RECONDITIONING (can. & preserv.) alternate titles: smeller
Smells opened cans of food products as they pass on conveyor to detect spoilage as indicated by odor. Sets aside rejected cans of food for disposal.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

529.687-122 KISS SETTER, HAND (sugar & conf.) alternate titles: sea-foam-kiss maker
Picks up quantity of candy with fork and rolls and shapes it against spatula to shape candy kisses. Places formed kisses on wax paper or tray to harden.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 4 DLU: 77

529.687-126 KOSHER INSPECTOR (dairy products)
Observes milking of cows to ensure compliance with Jewish dietary laws governing collection and storage of milk prior to processing and sale.
GOE: 06.03.02 STRENGTH: L GED: R3 M1 L1 SVP: 2 DLU: 77

529.687-130 LABORER (meat products)
Performs any combination of following tasks in slaughtering and meat packing establishment: Holds meat while it is being cut. Straightens and washes carcasses or parts on conveyor lines. Distributes meat to various work areas for further processing, using cart. Scrapes excess meat from surfaces of filled casings, such as sausages and bologna, and hangs them on conveyor racks. Pushes conveyor racks, hanging attachments, and meat carts, to various departments. Unloads smoked meats from conveyor racks and weighs, stamps, and tags them. Removes empty trolleys from overhead rail and places them in chute or onto other rails. Trucks empty ham molds to washing machines for cleaning process. Loads meat onto conveyor racks, carts, worktables, or trucks, using hook. Transports offal (carcass waste) from killing floor to rendering room and dumps offal into tankage cookers. Weighs and sacks rendered inedible offal. Fills ice trucks, using shovel. Stacks cartons of meat products on pallets or trucks and moves load to shipping or storage areas, using hand or power operated truck. Pushes meat through spray cabinet to wash meat. Washes equipment and utensils, using water hose and spray cabinet. Sweeps and washes railroad refrigeration cars. May cut specific parts such as hooves or tendons, using knife.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-134 LEAF SORTER (tobacco) alternate titles: selector; wrapper-leaf inspector
Sorts tobacco leaves according to color and condition for use as cigar wrappers or binders: Selects leaves without obvious defects from bundle and lays them on booker bench (curved-top stand over which leaves are draped). Examines leaves for color variations, tears, tar spots, tight grain, and size under specifications. Places leaves not suitable for wrapper in separate pile. Folds wrapper leaves into bundles for stripping.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-138 LEAF TIER (tobacco)
Ties tobacco leaves in hands (bundles) to facilitate processing: Selects loose leaves for hand and arranges leaves with butt ends together. Winds tie leaf around butts and pulls end of tie leaf into hand.
GOE: 06.04.28 STRENGTH: S GED: R1 M1 L1 SVP: 1 DLU: 77

529.687-142 LEAF-SIZE PICKER (tobacco) alternate titles: hands-size sorter
Sorts hands of tobacco according to size. Places hands of same size leaves on conveyor leading to ordering machine.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-146 LIGHTOUT EXAMINER (beverage)
Examines interior and exterior of washed tanks, metal barrels, or kegs for cleanliness and to detect corrosion. Crawls into tank or inserts light through bunghole to examine interior of container. Removes corroded and dirty barrels or kegs from conveyor.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.687-150 LINKER (meat products) alternate titles: roper; sausage linker
Twists and ties casings filled with sausage to form links of specified length: Ties one end of stuffed sausage casing with twine to prevent contents from spilling out. Presses casing between thumb and index finger at length specified. Twists casing at pressed section to form link. Twirls remaining length of stuffed casing to make additional links. Ties ends of stuffed casings to make longer string of links. Drapes sausages over rack for subsequent processing. Cuts casings to remove defective parts or to separate links, using cutting tool. May retie ends. May hold stomachs or casings during filling by SAUSAGE MAKER (meat products) and tie ends.
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.687-154 MAT SEWER (oils & grease)
Repairs mats used in pressing oil from linseed: Cuts worn or damaged sections from mats, using knife. Stitches useable mat strips together and reinforces borders to make new mats, using sewing machine.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-158 MELT-HOUSE DRAG OPERATOR (sugar & conf.)
Regulates flow of raw sugar from raw-sugar box to drags (conveyors) and elevators: Starts drags. Lifts slide on raw-sugar box to allow sugar to fall on drags. Breaks up sugar lumps in box, using scraper. Shifts slides to rotate drawing of sugar from box and to prevent caking and buildups. Draws samples of raw sugar for laboratory analysis. Opens or closes slides to increase or decrease flow of sugar. Removes sugar strings from drag, scrolls, and grates and throws strings in waste container.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

529.687-162 MOISTURE-METER OPERATOR (tobacco) alternate titles: tag-meter operator
Tests moisture content of tobacco in various stages of processing by either of following methods: (1) Places tobacco sample in electrical moisture meter and turns on current. Observes meter indicator and compares reading with conversion chart to determine moisture content. Records date, time, temperature, moisture content, and meter reading for each sample tested. (2) Weighs sample of tobacco and places sample in oven. Removes and weighs sample after specified time. Compares difference in weights with conversion chart to determine moisture content.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

529.687-166 ODD BUNDLE WORKER (tobacco)
Aligns tips of leaves, fed onto conveyor by other workers, against guide rail of conveyor to ensure tips will be cut to uniform length by power knife.
GOE: 06.04.15 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-170 PRESS PULLER (grain-feed mills)
Removes filter cloths from filter presses to unload separated solids used for making stock feed: Opens press and inserts prying tool between plates to free filter cloths or turns wheel to release ram holding filter frames together. Pulls cloths loaded with solids from press and shakes material onto conveyor or scrapes residue into pans with a spatula. Replaces clean cloths between plates and closes press. Shovels solids from pans into containers for further processing. Turns valve to move hydraulic ram against plates and hold cloths in position. May cut new filter cloths or papers. Usually works as member of team.
GOE: 06.04.15 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-174 SALVAGE INSPECTOR (can. & preserv.)
Inspects and sorts returned canned and bottled food products for possible salvage of contents: Opens containers by hand or with opening devices and inspects containers and contents for defects such as leaking or mislabled containers, or defective wrapping. Sets aside salvaged cans and bottles. Pours useable contents of defective cans or bottles into bulk containers. Discards rejected contents and containers into waste containers. Routes inspected materials to appropriate filling, packaging, and waste disposal points. May repackage salvaged cans and bottles. May wash glass containers.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529.687-178 SAMPLER (beverage) alternate titles: sampler, pickup
Collects samples of grain, mash, or wort, and alcoholic beverages in various stages of processing for laboratory analysis: Dips, scoops, or siphons samples into laboratory containers and labels containers to identify sample. Records information such as sampling station and time, or brewer name and location on forms or journals. Loads sample containers on handtruck and pushes handtruck to laboratory area.
GOE: 06.04.40 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

529.687-182 SHREDDED-FILLER HOPPER-FEEDER (tobacco)
Shovels filler tobacco into hoppers of cigar-making machines and bunchmaking machines. Transfers boxes or cases of shredded filler tobacco to machines, manually or using handtruck.
GOE: 06.04.28 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-186 SORTER, AGRICULTURAL PRODUCE (agriculture; can. & preserv.; wholesale tr.) alternate titles: sorter, food products
Sorts agricultural produce, such as bulbs, fruits, nuts, and vegetables: Segregates produce on conveyor belt or table, working as crewmember, according

to grade, color, and size, and places produce in containers or on designated conveyors. Discards cull (inferior or defective) items and foreign matter. Bunches, ties, and trims produce, such as asparagus, carrots, celery, and radishes. Picks out choice produce to be used as cappers (top layers on marketing containers). Packs produce in boxes, barrels, baskets, or crates for storage or shipment [PACKER, AGRICULTURAL PRODUCE (agriculture) 920.687-134]. May be designated according to work performed as Apple Sorter (agriculture; can. & preserv.; wholesale tr.); Asparagus Grader And Buncher (agriculture); Capper Picker (agriculture; wholesale tr.); Citrus-Fruit-Packing Grader (agriculture; wholesale tr.); Cull Grader (agriculture; wholesale tr.); Potato Grader (agriculture; wholesale tr.). May be designated: Asparagus Sorter (agriculture; can. & preserv.; wholesale tr.); Banana Grader (agriculture; wholesale tr.); Bulb Sorter (agriculture); Cherry Sorter (agriculture; can. & preserv.; wholesale tr.); Cranberry Sorter (agriculture; wholesale tr.); Fig Sorter (agriculture; can. & preserv.; wholesale tr.); Flower Grader (agriculture); Fruit Sorter (agriculture; can. & preserv.; wholesale tr.); Hop Sorter (agriculture); Nut Sorter (agriculture); Peach Sorter (agriculture; can. & preserv.; wholesale tr.); Potato Sorter (agriculture; wholesale tr.); Seed Sorter (agriculture); Tomato Grader (wholesale tr.); Vegetable Sorter (agriculture; can. & preserv.; wholesale tr.); Mushroom Sorter-Grader (can. & preserv.); Trimmer-Sorter (can. & preserv.); Sorter-Grader (can. & preserv.); Raspberry Checker (can. & preserv.).
GOE: 03.04.01 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 81

529.687-190 STONE CLEANER (beverage) alternate titles: carbonating-stone cleaner

Cleans or replaces stones in carbonating-stone assembly used to introduce carbon dioxide into tanks of beer: Carries stone to work area. Climbs into aging tank and disassembles frame and stone assembly, using handtools. Examines stone to detect faults or breaks. Scrubs stone, using brush and cleaners. Reassembles stone in frame. Discards faulty stones.
GOE: 06.04.39 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-194 SUCTION-PLATE-CARRIER CLEANER (tobacco) alternate titles: carrier blower; carrier washer

Cleans perforated suction plates of cigar-making machines: Turns thumbscrews to remove plates. Scrubs plates, using scrub brush and water. Immerses plates in boiling water to loosen dirt in airholes and blows out dirt, using airhose.
GOE: 06.04.39 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-198 SUMATRA OPENER (tobacco)

Removes hands of Sumatra tobacco from case or bale, shakes tobacco, removes broken leaves, and piles hands in stacks according to moisture content.
GOE: 06.04.28 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-202 TEMPERATURE INSPECTOR (meat products)

Inspects temperature readings of meat coolers for conformance to standards: Tours coolers periodically and compares temperature readings of each cooler with charts. Adjusts expansion valves in coolers to maintain specified temperature in each cooler.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

529.687-206 TROLLEY CLEANER (meat products)

Cleans trolleys used to move animal carcasses along overhead rail, in vats or tanks filled with solution: Turns water and steam valves to fill and heat cleaning vats or tanks. Dumps caustic soda and detergents into tank and stirs mixture with paddle. Pushes rack of trolleys to tank and lowers each trolley into solution, or immerses rack into solution, using hoist. Removes trolleys from solution and rinses them in hot water spray. Lubricates trolley wheels.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-210 WASHER (grain-feed mills) alternate titles: flusher

Washes and removes starch deposits from starch tables by flushing table with stream of water: Directs water hose over starch table to wash film of gluten from starch deposits. Plugs line to gluten tank at end of table and raises tailboard to allow starch deposit to flow to flushing tank. Turns valve to admit strong stream of water into starch table that loosens and flushes starch deposits into flushing tank.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

529.687-214 WASHROOM CLEANER (sugar & conf.)

Cleans beet washroom in sugar beet refinery: Removes beet tails, mud, stones, and trash from washer pit, using shovel. Removes debris from area of washroom, using wheelbarrow, pitchfork, and shovel. Washes floors, using hose.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-218 WRAPPER SELECTOR (tobacco) alternate titles: wrapper sizer; wrapper sorter

Selects perfect wrappers from books (halved leaves, bundled after stripping) and sorts wrappers according to size and color: Unties book and separates half leaves. Inspects wrapper leaves for holes or tears and discards imperfect leaves. Piles wrappers in stacks according to size and color. Wipes water-moistened sponge over top leaves of stack to prevent drying. Packs wrappers of like size and color into bundles and places bundles into containers.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

529.687-222 WRAPPING MACHINE HELPER (tobacco)

Mounts tobacco leaf and replenishes glue supply in plug-overwrap machine and assists PLUG-OVERWRAP-MACHINE TENDER (tobacco) to tend machine that wraps lumps of chewing tobacco in *homogenized leaf*: Mounts roll of homogenized tobacco leaf on overwrap machine and guides end of roll between machine rollers and under cutter. Pours glue into machine glue container to replenish supply reservoir. Pushes wire through hole of glue container to assure free flow of glue. Observes wrapping operation and removes defectively wrapped lumps from machine discharge conveyor. Wets down belts of machine, using rag, to prevent lumps from sticking to belt. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.28 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

529.687-226 INSPECTOR, PROCESSING (sugar & conf.)

Examines, weighs, and measures sheets and strips of unwrapped, finished chewing gum to ensure conformity to specifications and standards: Examines trays of rolled and scored gum to verify that finished gum is free of caked sugar, indentations, and foreign matter. Inspects gum surface for uniformity of sugar coating and for prescribed scoring and trimming. Weighs and measures thickness and length of gum strips, using scale, micrometer, and length gauge. Notifies supervisory personnel of deviations from prescribed standards.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 86

529.687-230 LABORER, SHELLFISH PROCESSING (can. & preserv.)

Performs any combination of following tasks concerned with fresh packing, canning, freezing, or smoking shellfish: Transports shellfish, shellfish meats, cans, or cases to work area manually, or using wheeled hopper, handtruck, or power hoist. Loads conveyors, hoppers, or handtrucks with product, cans, or cases. Spreads shellfish on conveyor, drenches them with water, and removes foreign matter. Weighs shellfish or shellfish meat, using scales. Records weight of product on standard form. Sorts shellfish according to size, and trims off unusable portions, using knife or scissors. Packs shellfish meat in jars, cans, or boxes, and packs containers in crushed ice to fresh pack. Cleans conveyors, machines, and work areas, using high pressure hose spray. May feed cans and lids into lidding machine [PACKAGER, MACHINE (any industry) 920.685-078]. May be designated according to work performed as Shellfish Checker (can & preserv.); Shellfish Packer (can. & preserv.); Shellfish Sorter (can. & preserv.); Shellfish Weigher (can. & preserv.).
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 78

53 OCCUPATIONS IN PROCESSING OF PAPER AND RELATED MATERIALS

This division includes occupations concerned with the manufacture of paper and products made from paper. Includes converting wood, other cellulosic materials, and rags into pulp.

530 GRINDING, BEATING, AND MIXING OCCUPATIONS

This group includes occupations concerned with reducing logs, straw, rags, and similar cellulosic materials to chips, dust, powder, paste, pulp, or other smaller particles by means of compression, grinding, or agitation; and combining and mingling materials to produce a single mass or compound.

530.132-010 COATING-MIXER SUPERVISOR (paper & pulp)

Supervises and coordinates activities of workers engaged in blending and mixing materials used to make coating for paper and related products: Reads production order to determine type and quantity of coating needed. Plans mixing sequence and orders raw materials from stockroom. Assigns job duties to workers and supervises weighing and mixing of materials. Tests each batch of coating for specific gravity, consistency, and color. Directs routing of coating mix to paper machines or storage tanks. Keeps daily production records. Instructs new workers in use of machinery and safety procedures. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

530.132-014 SUPERVISOR, BEATER ROOM (paper & pulp) alternate titles: beater, head

Supervises and coordinates activities of workers engaged in beating and refining pulp to prepare furnish for processing into paper: Calculates volume or weight of ingredients, such as pulp, fillers, size, alum, and dyes, using formulas and laboratory analyses of ingredient concentrations. Orders charging of beater vats with ingredients, beater roll adjustment, and time of beating. Examines pulp samples and reviews laboratory reports to determine when beating process is completed. Compares sample of paper produced with specifications or standard sample and orders changes in beating procedure to produce paper to specified standards. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

530.132-018 SUPERVISOR, WOOD ROOM (paper & pulp) alternate titles: wood-mill supervisor; wood-preparation supervisor

Supervises and coordinates activities of workers engaged in debarking, sawing, cleaning, and chipping logs to make wood chips for use as pulp: Schedules production of chips according to quantity and species of wood required by digesters. Plans routing of wood through mill according to species of wood. Inspects chips, and adjusts cutter knives to ensure chips are cut to specified standards. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 78

530.132-022 WOOD GRINDER, HEAD (paper & pulp) alternate titles: ground-wood supervisor; supervisor, groundwood mill

Supervises and coordinates activities of workers engaged in grinding logs and wood blocks into pulp: Directs workers in feeding and adjusting machines to obtain pulp of specified consistency. Observes grinders, examines pulp for length and thickness of fiber, and reads laboratory reports on pulp consistency to determine need for sharpening grindstone or machine adjustment. Installs sharpening burr in stone-dressing lathe, using wrench. Moves controls to feed burr against revolving stone to dress and sharpen stone. Replaces worn stone, using hoist and handtools. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

530.261-010 COLOR DEVELOPER (paper & pulp)

Develops formulas for paper-coloring dye and prepares directions for mixing dye with pulp to produce colored paper to specifications or customer's sample: Determines composition of color sample, using spectrophotometer. Mixes pulp with water, size, filler, and other ingredients to make sample furnish of type and quality of paper specified. Weighs and mixes pigments to prepare dye, and mixes dye with furnish. Pours furnish on screen to make handsheet sample. Compares color of handsheet with color sample, visually or with spectrophotometer. Calculates weights and proportions of pigments and other materials required to make production batch of dye and prepares formulas and mixing directions for COATING-MIXER TENDER (paper & pulp). Prepares directions for BEATER ENGINEER (paper & pulp; tex. prod., nec) for mixing dye with furnish. Prepares spectrophotometer charts on dye materials. Observes procedures of production staff in mixing dye with furnish and reviews laboratory reports to investigate causes of substandard colored paper. Consults with and advises production staff regarding technical problems in mixing colors and making colored paper to improve formulas and improve production methods.
GOE: 02.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

530.382-010 PULP-REFINER OPERATOR (paper & pulp)

Operates battery of machines to refine pulp and shorten fibers as pulp flows continuously through machines to prepare pulp for papermaking: Turns handwheels to adjust distance between bedplate and rotor knives to obtain specified fineness of fibers. Starts machines and pumps to regulate flow of pulp from beater chests through refining machines to paper machine chest. Examines pulp, reviews laboratory test reports, and adjusts machines to ensure that pulp meets specifications. May change bedplates and rotor knives, using handtools. May clean interior of storage chests, using water hose.
GOE: 06.02.14 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 78

530.384-010 MIXER HELPER (concrete prod.) alternate titles: puddler

Performs following duties to facilitate making wallboard (plasterboard): Puddles plaster slurry discharged from mixing machine, using puddling stick, and spreads it evenly for feeding into machine that combines slurry and paper into wallboard. Observes flow and squeezes flexible discharge nozzle (boot) of mixing machine to prevent formation of lumps in slurry. Scrapes hardened slurry from edge guides and smoothing bars. Scoops sample of slurry in cylinder, weighs it, and sets sample aside for specified period to determine consistency (slump). Places sample under testing needle that drops from specified height and indicates on dial depth of penetration to determine hardness (set) of core. Records test results and reports defects to supervisor. Clears jams on wallboard machine and cleans work area. Participates in splicing paper and in repairing wallboard and mixing machines.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

530.582-010 PULPER, SYNTHETIC SOIL BLOCKS (paper & pulp)

Operates hydropulper and batch reactor to blend woodpulp, plastic binders, and liquid fertilizers into slurry for use in molding synthetic soil blocks: Fills hydrapulper tank with water, adds woodpulp and measured amounts of chemicals, and starts agitator. Observes and records temperature, pressure, and time interval of agitation cycle. Pumps cooled pulp slurry to reactor tank and flushes hydrapulper tank with water. Starts reactor, adjusts temperature and pressure controls, and adds measured amounts of liquid fertilizers and plastic binders. Tests acidity of solution by titration and adds ingredients as needed to attain prescribed level. Pumps mixed slurry to storage tank for further processing. Flushes reactor tank with water.
GOE: 06.02.14 STRENGTH: H GED: R3 M3 L2 SVP: 4 DLU: 77

530.662-010 BEATER ENGINEER (paper & pulp; tex. prod., nec) alternate titles: beater operator

Controls beater engines and related equipment to process furnish for making paper, roofing felt, and related products: Starts pumps and adjusts valves to regulate flow of specified amount of slush pulp into vat. Starts engines and adjusts beater rolls to obtain specified degree of pulp fineness and hydration. Examines furnish for specified consistency and size of fibers. Dips sample from vat for laboratory testing. Starts pumps to transfer furnish to storage chests. May operate machine to refine pulp. May make *freeness* and acidity tests. May calculate volume and weight of furnish ingredients from technical control formulas. May mix and cook dyes for furnish. May control operation of battery of beaters and be designated Beater, Lead (paper & pulp; tex. prod., nec).
GOE: 06.02.18 STRENGTH: M GED: R3 M3 L2 SVP: 5 DLU: 78

530.662-014 WOOD GRINDER OPERATOR (paper & pulp)

Operates machines to grind logs or wood blocks into fibers used in making paper pulp, using one of following methods: (1) Opens slide gate, tosses wood into grinder pocket, and moves lever to actuate hydraulic piston that presses wood against revolving grindstones. (2) Adjusts panel controls to regulate conveyor system that feeds wood to hopper of grinder machines. Straightens wood in machine pocket or hopper to prevent jams, using *picaroon*. Turns valves to regulate spray of water to cool grindstones and to control consistency of pulp. Turns handwheel to raise or lower dam to control flow of pulp from discharge end of machine. Observes temperature gauge and color of pulp for evidence of burns caused by dull or broken grindstones and notifies WOOD GRINDER, HEAD (paper & pulp) 530.132-022 of defects. May be designated according to type of machine operated as Pocket-Grinder Operator (paper & pulp); Ring-Grinder Operator (paper & pulp).
GOE: 06.02.14 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

530.665-010 BEATER-ENGINEER HELPER (paper & pulp; tex. prod., nec) alternate titles: beater-operator helper

Tends beaters and vats that prepare furnish for making paper, roofing felt, and related products: Turns valves to charge vats with specified amounts of slush pulp, fillers, size, and liquid chemicals. Weighs and dumps dry ingredients into vat according to formula. Dips furnish sample from vat for laboratory testing. Removes plug of vat to dump furnish into beater chest or starts pump to transfer furnish from vat to storage. Observes vat and beater operation and notifies BEATER ENGINEER (tex. prod., nec; paper & pulp) 530.662-010 of malfunction. Cleans vat with water and hose and scrapes out adhering matter. May truck materials from storage. May weigh, mix, and cook dyes. May chip rust, scale, and other deposits from machine rolls, using airhammer. May truck sheet pulp and other materials from stockroom.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 78

530.665-014 RAG-CUTTING-MACHINE TENDER (paper & pulp; tex. prod., nec)

Tends rag-cutting machine that cuts rags to specified size preparatory to processing into paper, roofing felt, or related products: Presses buttons to actuate conveyor, cutters, and blowers. Observes movement of rags along conveyor to detect clogging or malfunctioning machine. Stops machine at sound of warning buzzer and removes clogged rags, using iron pry. Reports mechanical defects to supervisor. Lubricates, adjusts, and replaces worn blades of machine. May record amount of rags cut on daily production record.
GOE: 06.04.05 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

530.666-010 RAG-CUTTING-MACHINE FEEDER (paper & pulp; tex. prod., nec) alternate titles: cutter operator

Feeds machine that cuts rags to size for cooking, bleaching, and defibering prior to making paper, roofing felt, or related products: Places rags on apron of machine and pushes them into feeder roll or loads rags onto conveyor leading to machine. Examines cut rags for size and notifies supervisor if machine knives need adjusting or sharpening. May loosen setscrews with wrench and remove knives. May clean dirt and dust from dust compartment and work area.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

530.682-010 PULP GRINDER AND BLENDER (paper & pulp; wood prod., nec)

Operates machines to grind cooked wood chips into pulp and blend pulp with other specified ingredients in manufacture of wallboard: Turns handwheel to adjust grinding-plate settings. Starts machines and adjusts panel controls to maintain level in pulp and water chests and regulate flow of chips through grinding machines. Observes charts, dials, and gauges; and adjusts levers, valves, and panel controls to regulate flow of specified amounts of pulp, alum, wax, asphalt, and starch into blending machine. May weigh samples of wet and dry pulp on scales and calculate moisture content. May test pulp for *freeness*, fineness, density, and breakage. May record production and test data.
GOE: 06.02.14 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

530.685-010 COATING-MIXER TENDER (paper & pulp) alternate titles: clay mixer

Tends machine that mixes and strains filling and coating materials for paper: Weighs and dumps specified quantities of materials, such as clay, soda ash, titanium dioxide, lithopone, or gypsum, into hopper of mixing machine. Turns valve to admit metered volume of water into mixing machine and starts machine that mixes ingredients. Starts pumps that force mixture through straining screens and into storage tanks. Lifts screens from machine and washes screens with water hose. May deliver sacks of materials to mixer, using handtruck or forklift truck. May weigh and add specified quantities of color pigments to mixture. May plan mixing according to paper production orders.
GOE: 06.04.14 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

530.685-014 PULPER (paper & pulp; tex. prod., nec) alternate titles: slusher operator

Tends machine that reduces broke or dry pulp sheets to pulp or slurry for use in making paper, wallboard, or related products: Dumps broke or pulp sheets onto conveyor or into vat to fill pulper machine. Pushes buttons and turns valves to admit water, ink removing solution, and steam that softens material to specified consistency. Starts beating machine that reduces material to pulp. Observes and monitors material, dials, or charts to ensure specified consistency of pulp. Opens discharge gate or starts pump to dump or transport pulp to storage or to other processes. May catch pulp in broke boxes and push boxes to beater engines. May push cart loads of broke from paper machines to pulper. May be designated according to material reduced as Broke-Beater Tender (paper & pulp; tex. prod., nec); or according to type of machine used as Hydropulper (paper & pulp).

GOE: 06.04.14 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 81

530.686-010 BEATER-AND-PULPER FEEDER (paper & pulp; tex. prod., nec)
Feeds scrap paper or wood chips into beater tanks for grinding into furnish used in making paper, roofing felt, or related products: Conveys bales of scrap paper, fillers, starch, and chemicals to beater room, using forklift truck or handtruck. Opens bales and dumps paper and fillers into beater tanks. Observes scrap paper and discards plastic or other insoluble items into trash bin. Stacks bales of scrap paper and sacks of chemicals onto conveyor of pulper machine, using forklift truck. Sweeps and cleans work area. May open valves to drain furnish from beater tanks into storage units. May clean equipment screens, blades, and interior surfaces, using brushes, broom, and cleaning solutions.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

530.686-014 LOADER, MAGAZINE GRINDER (paper & pulp) alternate titles: magazine loader
Loads pulp logs or wood blocks into magazines of grinder that reduces them to fibers used in making paper: Lifts and places logs into magazines, using lumber hooks or *picaroon* to align logs and avoid jams. Cuts oversized logs to desired length, using cutoff saw.
GOE: 06.04.14 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

530.686-018 WASTE-PAPER-HAMMERMILL OPERATOR (paper & pulp)
Feeds waste paper into machine that cuts paper into small pieces for use as building insulation. Fills sack with cut paper.
GOE: 06.04.14 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

530.687-010 RAG INSPECTOR (paper & pulp) alternate titles: inspector, rag sorting
Examines rags to verify that they have been sorted according to color, quality, type, and condition, and that foreign matter, such as clips, buttons, and elastic, has been removed. Weighs rags and records weight. Trucks rags to cutting machines.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

532 COOKING AND DRYING OCCUPATIONS

This group includes occupations concerned with removing moisture from paper and related materials by exposing them to heat or air or placing them in a vacuum, and cooking materials at specific temperatures for varied intervals to effect their composition, consistency, or texture.

532.362-010 DIGESTER OPERATOR (paper & pulp; paper goods) alternate titles: cook; digester cook
Operates battery of stationary or rotary steam digesters to cook wood chips with soda ash or acid to make pulp for use in manufacture of paper and insulation board: Signals DIGESTER-OPERATOR HELPER (paper & pulp; paper goods) 532.686-010 to charge digesters with specified amounts of chips and chemicals. Turns valves or moves panel controls to admit steam into digesters, to raise temperature and pressure within specified limits, and to start rotary digesters. Monitors temperature, flow, and pressure gauges and charts to ensure that chips are cooked according to specifications. Tests samples of digester liquid by titration or standard color chart to determine completion of cooking process. Opens valves of stationary digester to blow cooked pulp into pit, or pulls lever to tip rotary digester and dump contents. Compiles production records. May be designated according to process as Cooker, Soda (paper & pulp; paper goods); Cooker, Sulfate (paper & pulp; paper goods); Cooker, Sulfite (paper & pulp; paper goods).
GOE: 06.02.14 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 78

532.585-010 MATRIX-DRIER TENDER (paper & pulp)
Tends cylinder drier that dries sheets of matrix paper: Sets controls of drier to regulate temperature and speed of cylinder and position of belt. Starts drier and feeds wet sheets between revolving cylinder and belt. Observes gauges and feels dried sheets for moisture content, and adjusts controls to achieve specified dryness. Gauges thickness of fiberboard and matrix mats, using micrometer calipers. Sorts and records mats according to thickness and stacks them on skids.
GOE: 06.04.14 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

532.685-010 BACK TENDER, INSULATION BOARD (wood prod., nec) alternate titles: pulp drier
Tends oven drier at back end of pulp-making machine that removes moisture from pulp sheets: Observes gauges and charts, and turns valves to regulate flow of steam and control oven temperature. Aligns sheets on conveyor to prevent jams. Regulates speed of conveyor to ensure that dried sheets conform to moisture content specifications.
GOE: 06.04.14 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

532.685-014 COOKER TENDER (paper & pulp)
Tends cooker that cooks logs for processing into pulp: Bolts bottom of cooker in place. Opens gate of loading chute and guides logs into cooker with pike pole. Turns valve to fill cooker with steam to cook wood for specified period. Unbolts bottom of cooker and loads logs onto handtruck.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

532.685-018 EVAPORATOR OPERATOR (paper & pulp)
Tends evaporator that condenses sulfite and black liquor to prepare them for recovery furnace: Adjusts controls and turns valves of evaporator to regulate flow and temperature of liquor to dehydrate liquor to specified density. Tests sample of liquor concentrate, using hydrometer and thermometer, to determine density. Cleans evaporator chambers, using steam hose.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

532.685-022 MOISTURE-CONDITIONER OPERATOR (paper & pulp)
Tends machine that threads continuous sheet of paper through moisture-conditioning cabinet to dampen paper: Turns valves to regulate flow of air, steam, and water in cabinet to control temperature and moisture. Places roll of paper on reel stand, using hoist, and wraps end of paper around threader bar. Starts machine that automatically threads paper between feed and tension rolls in cabinet. Wraps end of dampened paper sheet on core shaft of rewinder reel. Adjusts tension of paper by adding or removing weights on chain.
GOE: 06.04.14 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 77

532.685-026 PULP-PRESS TENDER (paper & pulp) alternate titles: hydraulic-press tender
Tends hydraulic press that removes moisture from fiberboard, laps, or sheets of wet pulp: Pushes loaded truck under hydraulic pressing plate and starts machine to lower ram and press water from pulp. Pulls truck away from press and pushes it to baling area. May stack layers of laps or sheets on handtruck, placing wire mesh or fiber mats between layers to facilitate pressing water from stock.
GOE: 06.04.14 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

532.686-010 DIGESTER-OPERATOR HELPER (paper & pulp; paper goods) alternate titles: cook helper; digester-cook helper; pulp-making-plant operator
Feeds wood chips and soda ash or acid into digester that processes wood chips into pulp: Unbolts and removes digester cover, using wrench and chain hoist. Lowers feed pipe into digester, using hoist, and pushes button or turns handwheel to load digester with wood chips. Pushes control panel button or turns valve to admit specified quantities of soda ash or acid into digester. Replaces and bolts cover. May remove cover and blow steam from digester at completion of cooking cycle. May tend conveyors that convey chips to hopper or cooked pulp to storage bins. May open valves to blow cooked pulp into pit. May pull lever to dump cooked pulp from rotary digester. May draw and deliver pulp sample to laboratory for analysis.
GOE: 06.04.18 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 78

532.686-014 PAPER-CONE-DRYING-MACHINE OPERATOR (paper goods)
Dumps paper cones treated with solution of turpentine and beeswax into drying cabinet and starts fan. Rakes cones from cabinet after specified drying time.
GOE: 06.04.14 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

532.687-010 LABEL DRIER (recording)
Dries phonograph labels in oven for use by record-press section: Obtains specified labels from stock and spreads them on drying racks of oven. Turns dial of automatic timer to start drying cycle. Removes dried labels from racks and separates labels by title. Stacks labels on warming plates near record presses, according to production schedule. Collects, sorts, and returns unused labels to storage at end of shift.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

533 COOLING, BLEACHING, SCREENING, WASHING, AND RELATED OCCUPATIONS

This group includes occupations concerned with cleaning materials with water, making them cooler, whitening them by use of chlorine gas or other bleaching agents, and separating finer from coarser parts by use of a screen.

533.362-010 BLEACHER, PULP (paper & pulp)
Controls equipment to bleach pulp: Starts pumps and adjusts controls to regulate flow of pulp to chlorination towers, bleaching and soaking tanks, and pulp washers, according to specified bleaching sequence. Opens valves to allow metered flow of such chemicals as liquid and gaseous chlorine, sulfur dioxide gas, caustic soda, hypochlorite, and peroxide into pulp, according to bleaching specifications. Starts agitators to mix pulp and chemicals. Tends cylinder washers to wash soluble impurities and excess bleach from pulp after each bleaching operation. Adjusts controls to ensure that pulp bleaching meets specifications, according to laboratory test reports. Starts equipment to pump bleached pulp to storage. May make titration tests. May test whiteness of pulp, using *reflectance meter*. May tend decker machines that thicken pulp. May be designated according to pulp-making process as Bleacher, Groundwood Pulp (paper & pulp); Bleacher, Kraft Pulp (paper & pulp); Bleacher, Sulfite Pulp (paper & pulp).
GOE: 06.02.14 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 78

533.665-010 BLOW-PIT OPERATOR (paper & pulp)
Tends blow pits that wash pulp to remove cooking acid: Covers blow pit floor with specified amount of water, using hose, and clamps shut doors and hatches to prepare blow pit for receiving cooked pulp. Turns wheel, as signaled by DIGESTER OPERATOR (concrete prod.; paper & pulp), to open digester outlet valve and blow cooked pulp under pressure into blow pit. Opens valve to drain spent cooking liquor and water from pulp in blow pit. Opens water faucet or sprays pulp with water from high-pressure hose to wash cooking liquor from pulp and flush pulp from blow pit into receiving chests. Dips pulp sample from pit for testing in laboratory.

GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

533.682-010 DECKER OPERATOR (paper & pulp) alternate titles: rotary-filter operator

Operates decker or rotary filter machines to remove water from pulp stock and reduce stock to specified consistency for bleaching or beating: Turns valves to regulate flow of pulp stock into machine vat. Starts machine and adjusts controls to regulate speed of cylindrical screen in vat. Turns valve to adjust suction in cylinder to deposit pulp on screen at specified rate and remove white water through meshes of screen. Turns handwheels or pulls lever to adjust press roll against screen to obtain pulp of specified consistency. Pulls lever to adjust blade that scrapes pulp from screen into storage chest. May tend flat or rotary screens to remove coarse fibers from pulp.
GOE: 06.02.14 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

533.685-010 BLEACH-BOILER FILLER (paper & pulp) alternate titles: bleach-boiler packer; filler

Tends rotary bleach boiler that cleans and bleaches rags used in making paper: Charges boiler with rags, chemicals, and water. Fastens boiler cover, starts rotary motor, and turns steam valves to clean and bleach rags in boiler for specified length of time. Opens valves to reduce steam pressure and drain liquid from boiler. May pack boiler with alternate layers of rags and dry chemicals. May mix chemicals.
GOE: 06.04.14 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

533.685-014 BROWN-STOCK WASHER (paper & pulp)

Tends machines that wash cooking liquor from pulp: Starts machines and pumps, and turns valves to regulate spray from water jets and flow of pulp through washer to remove cooking liquor. Opens drains to dispose of wash water or transfer wash water to recovery storage tank. May tend flat or centrifugal screens that remove knots or uncooked chips from pulp.
GOE: 06.04.14 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

533.685-018 SAVE-ALL OPERATOR (paper & pulp)

Tends machine that salvages woodpulp suspended in white water: Opens valves or starts pumps to regulate flow of white water and glue size into vat causing pulp to flocculate (form fluffy mass) for easier removal. Starts cylinder of machine revolving to remove pulp from water. Turns valve to adjust vacuum in cylinder to remove water from pulp deposited on screen. Pulls levers to adjust blade that scrapes pulp from cylinder into receiving chest. Starts pumps to transport recovered pulp and residue of white water containing fillers, dyes, and chemicals to storage chests. Cleans machine and pipelines with brushes and chemical solution.
GOE: 06.04.14 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

533.685-022 SCREEN TENDER (paper & pulp) alternate titles: screen-room operator

Tends knotters, rifflers, and centrifugal and flat screens that remove knots, sand, coarse fibers, and uncooked chips from cooked woodpulp: Starts machine and turns valves to adjust flow of pulp and water into screening machine at specified consistency, or sets automatic consistency regulator. Adjusts water sprays to wash pulp through screens and refuse into receiving chests. Examines and feels usable (fine) fibers and screened-out material to detect inefficient cleaning and loss of stock, and adjusts flow of pulp stock and water accordingly. Replaces defective screen plates, using handtools. Cleans screen plates and flow boxes with water hose. Washes and scrapes sand deposits from rifflers. May tend washers to wash cooking liquor from pulp [DECKER OPERATOR (paper & pulp)]. May be designated according to type of machine tended as Centrifugal-Screen Tender (paper & pulp); Riffler Tender (paper & pulp); Rod-Machine Operator (paper & pulp).
GOE: 06.04.18 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

533.685-026 SCREEN TENDER, CHIPS (paper & pulp)

Tends rotary or shaker screens that remove slivers, sawdust, dirt, knots, and oversized chips from wood chips used for paper pulp: Starts conveyors to move wood chips from storage to screens and to transfer cleaned chips to designated bins. Starts screens and blower to clean chips and adjusts feeding mechanism on screens to prevent overloading. Cleans screens with airhose and brush after each run. Oils machine and conveyors. May tend rechipping machine to reduce size of oversize chips.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

533.685-030 THRASHER FEEDER (paper & pulp) alternate titles: rag-willow operator

Tends thrasher (dusting machine) that removes dust and lime from rags: Starts machine and feeds rags into machine hopper. Removes dust receiver from machine, dumps dust, and cleans machine.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

533.685-034 WASHER ENGINEER (paper & pulp)

Tends equipment that bleaches and washes cooked rags used in making paper: Turns valve to fill vat with water. Dumps specified quantities of chlorine, lime, and alum into vat to prepare bleaching solution. Places rags in solution to bleach them for specified length of time. Turns valve to drain solution from vat. Sets controls to regulate flow of water into vat to wash bleach solution from rags. Starts roller to pick up and eject dirty water from vat. Turns valve to drain wash water from vat. Removes rags from vat and places them in seasoning bin.
GOE: 06.04.14 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

533.686-010 BLOW-PIT HELPER (paper & pulp)

Assists BLOW-PIT OPERATOR (paper & pulp) in washing pulp to remove cooking acid: Pulls lever to close blow pit drain covers. Dumps pulp from digester into blow pit. Turns handwheel to open drain valves that permit gravity drainage of cooking liquor into recovery vat or sewers. Flushes residual pulp from blow pit, using high-pressure water hose. Cleans work area, using broom, hose, and shovel. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

533.686-014 WASHER-ENGINEER HELPER (paper & pulp)

Assists WASHER ENGINEER (paper & pulp) in bleaching and washing cooked rags used in making paper: Removes covers from boiler, using hoist and wrenches. Positions stock boxes under boiler openings to receive cooked rags. Removes rags stuck in boiler, using metal hook. Pushes loaded boxes to washer and dumps rags into washer, using hoist. Turns valves to emit rags from machine after completion of wash cycle and conveys material to designated area of plant for further processing. Records rag type and time of wash cycle on production sheet. Cleans equipment and work area. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

533.687-010 SCREEN-TENDER HELPER (paper & pulp) alternate titles: screen washer

Assists SCREEN TENDER (paper & pulp) in removing impurities and uncooked chips from cooked woodpulp: Turns valve to activate pump that fills defoamer tank. Washes clogged masses of fibers and impurities from screen plates, using water hose. Washes and scrapes sand and sludge from rifflers and flow boxes. Draws and spreads pulp sample in sheet mold. Observes sample against light, and notifies SCREEN TENDER (paper & pulp) when sample fails to meet cleaning specifications. May remove and replace screen plates, using handtools. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

534 CALENDERING, SIZING, COATING, AND RELATED OCCUPATIONS

This group includes occupations concerned with imparting a desired finish or ensuring uniform thickness in paper by pressure applied with rollers; applying a thin pasty substance such as glue, starch, or resin to paper to glaze it, act as a filler, or otherwise treat the surface; and brushing a layer of mineral over paper and then drying it as a preliminary step to calendering.

534.130-010 SUPERVISOR, COATING (photo. appar.)

Supervises and coordinates activities of workers engaged in operating coating machines to sensitize blueprint and photographic paper: Sets up machine and adjusts roller speed and drying temperature. Reads gauges and graphs and inspects control mechanisms to verify machine setup. Adds chemical ingredients, such as solvents and neutralizing agents, to solution as specified by quality control test reports. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

534.132-010 SUPERVISOR, CALENDERING (paper & pulp)

Supervises and coordinates activities of workers engaged in operating calender machines to impart specified gloss and finish to surface of paper: Assigns duties to workers, according to production orders and knowledge of machine capacities. Inspects finish of paper for adherence to specifications. Trains workers in operation of machines. Maintains production, quality control, and personnel records. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.04 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

534.132-014 SUPERVISOR, PAPER COATING (paper & pulp; paper goods)

Supervises and coordinates activities of workers engaged in operating machines to coat, laminate, or impregnate paper and related materials with substances such as wax, resins, starches, or polyethylene: Confers with customers and company officials to obtain order specifications. Prepares work schedules and assigns duties to workers. Analyzes production reports and maintains production records. Trains workers. May operate coating machines during absences of regular workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 78

534.137-010 SUPERVISOR, CARBON-PAPER-COATING (pen & pencil)

Supervises and coordinates activities of workers engaged in manufacturing carbon paper and inked ribbons, and processing printed forms into multicopy business forms and teletype rolls: Reads work orders and production schedules to determine processing sequence. Prepares time and cost estimates and other production reports. Assigns duties and interprets company policy to workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

534.380-010 CARBON-PAPER-COATING-MACHINE SETTER (pen & pencil)

Sets up and adjusts battery of machines that pass paper or plastic sheeting between series of rolls to coat it with inked wax-oil preparation to make carbon

paper: Selects and installs specified rolls, such as printing (to print specified wording and design on back of paper), applicator, wiper, hot, and cold rolls, using wrenches. Wipes rolls with cloth and solvent to remove dirt and excess wax. Turns valves to admit steam and cold water into hot and cold rolls. Observes gauges and adjusts valves to regulate temperature of rolls and heat of wax in reservoir pan. Measures thickness of material to be coated, using micrometers, to determine that weight is as ordered. Observes paper as it passes over and around rolls, and turns nuts to adjust positions of rolls to remove wrinkles. Measures thickness of coated paper with micrometers, and adjusts distance between applicator and wiper rolls to produce coating of specified thickness. Assists CARBON-COATER-MACHINE OPERATOR (pen & pencil) in installing and removing rolls of material and in cutting jammed paper from rolls.
GOE: 06.01.02 STRENGTH: H GED: R3 M3 L3 SVP: 5 DLU: 77

534.482-010 WAXING-MACHINE OPERATOR (paper goods) alternate titles: sheeter-waxer operator; wax-coating-machine tender; waxer operator

Operates machines to coat paper or cardboard container blanks with wax or paraffin: Mounts paper roll on machine feedrack by hand or using chain hoist, or loads blanks on stacking mechanism. Fills tank with wax chunks or paraffin blocks, and turns valves to regulate temperature and melt material. Starts machine and adjusts controls to regulate machine feed, temperature of wax, paraffin, cooling rolls, or cold water bath, and tension of paper feed or stacking mechanism. Weighs standard-size paper sheets before and after coating and calculates weight of wax, or measures thickness of coated blanks with automatic micrometer, to verify that coating meets specifications. Examines blanks for uneven paraffin distribution, bubbles, spots, or other imperfections. May be designated according to type of product coated as Carton-Waxing-Machine Operator (paper goods).
GOE: 06.02.14 STRENGTH: H GED: R3 M3 L2 SVP: 5 DLU: 77

534.565-010 OVEN TENDER (ordnance)

Tends series of drying and humidifying ovens and waxing tanks that waterproof and condition paper tubes preparatory to processing into shotgun shells: Turns valves and pushes buttons to heat oven, admit water and liquid wax into tanks, and start cooling fans. Observes temperature, humidity, and steam pressure charts and gauges, and adjusts equipment accordingly. Notifies maintenance workers of equipment malfunction. Lifts baskets of die-sized tubes into monorail carriers at sizing machines. Pushes loaded carriers into polymerizing oven to harden linseed-oil coating and into humidifying oven to soften paper for subsequent machining. Immerses carriers in molten wax to waterproof tube interiors, using hoist. Empties carriers into steam-heated tumbler to remove excess wax from tubes. Records types and quantities of tubes processed.
GOE: 06.04.14 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

534.582-010 PAPER-COATING-MACHINE OPERATOR (photo. appar.) alternate titles: coater; sensitizer

Operates machine to coat paper with chemical solution or emulsion to produce paper for graphic duplicating or photographic printmaking: Fills coating troughs with specified chemicals. Mounts paper roll on machine spindle, using hoist or lift truck. Threads paper through coating rollers and drying chamber. Adjusts screws on roller shaft to regulate machine speed and paper tension, using handtools. Adjusts temperature in drying chamber to regulate drying of paper. Examines and feels surface of coated paper emerging from machine for streaks, discoloration, and adequate moisture content. Cuts paper with knife to obtain sample for laboratory testing. Records gauge and graph readings and production data. May be designated according to type of coating applied as Blueprint-Paper-Coating-Machine Operator (photo. appar.); Photographic-Paper-Coating-Machine Operator (photo. appar.).
GOE: 06.02.14 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

534.662-010 BACK TENDER, PAPER MACHINE (paper & pulp) alternate titles: second hand, paper machine

Operates drier, calender, and winding sections of fourdrinier or cylinder-type papermaking machines to produce paper and wind it onto rolls: Threads continuous sheet of paper through carrier, drier, and calender rolls by hand. Observes charts and gauges, and turns valves to adjust steam pressure, temperature of drier and calender rolls, and hot air blowing into continuous sheet. Turns wheels to adjust tension on rolls and control running speed of sheet. Inspects sheet for defects, such as dirt, slime spots, holes, and wrinkles, and marks defective portions for removal at rewinding section. Directs workers engaged in winding, slitting, weighing, wrapping, and stenciling paper rolls. May operate size tub or spray paper with steam, water, or dyes to obtain specified finish. May operate drying section only to produce rolls or sheets of dry pulp and be designated Back Tender, Pulp Drier (paper & pulp). May be designated according to type of machine as Back Tender, Cylinder (paper & pulp); Back Tender, Fourdrinier (paper & pulp).
GOE: 06.02.14 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 78

534.665-010 SCREEN TENDER (paper & pulp; wood prod., nec)

Tends filter-screen unit at wet end of fourdrinier machine that makes paper, sheet pulp, or insulation board from pulp stock: Adjusts guides to prevent wet felt from running off machine, using wrench. Turns valves to regulate flow of water and pulp onto filter screens as requested by FOURDRINIER-MACHINE OPERATOR (paper & pulp; paper goods). Scrapes residue from screens with hand rake. Observes pickup of pulp from cylinder screens by carrier mat and formation of continuous sheets to detect defects in paper, such as breaks, slivers, dirt, and slime spots. Notifies FOURDRINIER-MACHINE OPERATOR (paper & pulp; paper goods) of paper defects and machine malfunctions.
GOE: 06.04.14 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

534.682-010 AIR-DRIER-MACHINE OPERATOR (paper & pulp) alternate titles: continuous-loft operator

Controls equipment to size (coat) and dry paper: Positions paper roll on feedrack, using hoist. Threads paper through size tank and press and drier rolls, and secures it to winding reel. Starts equipment and adjusts controls to regulate speed of winding reel, temperature of drier rolls, and temperature of air rising from ducts to obtain specified finish. Examines paper during winding for uniformity of finish and defects, such as wrinkles and tears, and flags defective sections for removal. May operate slitter and winder machine to slit and rewind paper into smaller rolls [SLITTING-MACHINE OPERATOR (any industry) I]. May operate machine to cut paper into specified sizes [CUTTER OPERATOR (any industry)].
GOE: 06.02.14 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

534.682-014 CARBON-COATER-MACHINE OPERATOR (pen & pencil) alternate titles: coater, carbon paper

Operates machine that coats paper or plastic sheeting with inked wax-oil preparation to make carbon paper: Dips hot solution from storage vat, using pail, and pours solution into pans of machine. Installs roll of paper on machine and threads roll through series of rollers that roll coating on paper, imprint back of paper with identifying data, and chill coating to harden it. Observes gauges and turns steam and cold water valves to regulate temperatures of rolls. Starts machine and observes paper to detect defects, such as tears, slits, holes, and light spots, blurred or incomplete printing, and lack of sheen in coating that indicates need for replenishing ink supply. Turns nuts to adjust tension of roll to prevent wrinkles in paper. Measures thickness of coated paper, using micrometer, to verify that specified quantity of coating is being applied. Cuts jammed paper from rolls and machine, using knife and shears. Cleans rolls and machine parts with solvent and cloths.
GOE: 06.02.21 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

534.682-018 COATING-MACHINE OPERATOR (paper & pulp; paper goods) alternate titles: grounding-machine operator; paper coater

Operates machine to glaze or impregnate paper with size or coating mixtures: Adjusts spreader rollers and aligns or fastens brushes or scraper blade in machine, using handtools, to spread coating to specified depth on paper. Loads paper roll on machine feedrack, using hoist, and threads paper through spreader, pressure, and drying rolls. Turns valve to admit specified coating mixture into machine tank. Starts machine and observes paper to detect wrinkles, breaks, and uneven coating. Turns handwheels or levers to adjust tension of paper and pressure of rollers. May measure depth of coating, using micrometer. May be designated according to coating material used as Clay-Coating-Machine Tender (paper & pulp; paper goods); Varnisher-Plasticoater (fabrication, nec). May coat printed wallpaper with plastic solution to waterproof it and be designated Waterproof-Coating-Machine Tender (paper goods).
GOE: 06.02.14 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

534.682-022 COATING-MACHINE OPERATOR, HARDBOARD (paper goods; wood prod., nec) alternate titles: paint-coating-machine operator

Operates machine to spray paint and print surface finish on hardboard sheets: Fills hoppers of machine with ready-mixed paint. Starts machine and moves controls to regulate spraying action, specified tension of rollers, and temperature of infrared drying lamps. Tests density of paint, using viscometer. May tend machine that coats unfinished insulation board with talc to prevent sticking during subsequent pressing and be designated High-Density-Talc-Coater Operator (wood prod., nec).
GOE: 06.02.14 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

534.682-026 COMBINER OPERATOR (paper & pulp; paper goods) alternate titles: combiner-sheet operator; hot-melt-machine operator; laminating-machine operator; paster operator; solid-fiber-paster operator

Sets up and operates machine to combine two or more continuous sheets of material, such as paper, paperboard, foil, and plastic film, to form such laminated products as building paper, fiberboard, wallboard, or material from which metallic yarn is slit: Mounts rolls of materials in machine, using hoist. Threads materials over and under guide rollers (one sheet over adhesive roller), around cooling drum, and to rewinder core. Starts pumps to transfer adhesive solution from storage tanks to machine. Starts machine, observes gauges, and adjusts controls to maintain temperature and pressure of rollers, temperature of adhesive, filling of cooling drum, functioning of doctor blade, and speed of machine. Inspects samples of laminated products for defects, such as wrinkles and thick spots. May test specific gravity of adhesive solution, using hydrometer. May attach ends of new material to material in machine with tape. May set up and operate machine to extrude polyethylene film, combine film with paper or aluminum foil, and print design on processed laminated paper used for wrapping materials and be designated Polyethylene Combiner (paper goods).
GOE: 06.02.09 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 78

534.682-030 CREPING-MACHINE OPERATOR (paper goods) alternate titles: crinkling-machine operator

Operates machine to crinkle smooth-surfaced paper to form crepe paper: Mounts stock roll on machine, using chain hoist. Regulates flow of glue or lam-

inate to pans and steam to drying cylinders. Starts machine and threads sheet through glue pan, feed rolls, creping (crinkling) roll and blade, rolls that remove excess glue or laminate, drying cylinders, tension rolls, and onto rewinding rolls. Moves controls to bring creping blade in contact with moving paper to crinkle paper, and adjusts temperature of steam-heated rolls, tension of paper, and pressure of rolls to prevent tearing or folding of paper. Cuts paper, using knife, and removes roll of crepe paper when required amount has been wound. May operate machine equipped with cylinder press that simultaneously prints and laminates surface of paper in addition to creping process and be designated Crepe-Laminator Operator (paper goods).
GOE: 06.02.14 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

534.682-034 STRAP-MACHINE OPERATOR (paper goods) alternate titles: strap-making-machine operator
Operates strapping machine to glue, compress, and dry multiple strands of twisted fiber yarn to form straps used for packaging: Hangs cones of yarn on creel and empty spool on winder. Turns valves to fill glue troughs. Opens steam valves and observes thermometer to heat glue and drying cans to specified temperature. Adjusts distance between dies to specified measurements, using handtools. Threads strands through tension device, glue bath, compression dies, infrared tacking lamps, around drying can, and through roller and counter to spool. Starts equipment and inspects finished strapping for strand separation, thickness, and width, visually or using gauges. Cuts out faulty areas and splices cut ends together. Replaces full spools on winder. Observes creel, replaces emptying cones, and splices ends. Repairs breaks in yarn by splicing ends. Tags and marks full spools for identification.
GOE: 06.02.05 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

534.682-038 SUPERCALENDER OPERATOR (paper & pulp)
Operates supercalender machine to impart specified gloss and finish to surface of paper: Positions roll of paper on machine reel stand, using hoist. Fastens collar and alignment guides on shaft to secure roll, using wrench. Threads paper around feed, calender, and tension rolls, and wraps end of paper around core shaft of rewinder roll. Observes gauge and turns valve to control temperature by regulating flow of steam to calender rolls. Turns handwheels to control tension of paper and pressure of rolls. Inspects paper for dirt, slime spots, wrinkles, and compactness of winding. Splices breaks in paper with glue or splicing paper, and seals splices with heated flatiron. Tests paper samples for gloss and finish, using glarimeter. Holds sandpaper against revolving rolls to remove lint and dirt.
GOE: 06.02.04 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

534.685-010 DAMPENER OPERATOR (paper & pulp)
Tends machine that dampens rolls of paper prior to calendering: Inserts steel shaft in core of roll and positions roll on machine frame, using hoist. Aligns roll on shaft and fastens collar to shaft to secure alignment, using rule and wrench. Turns valve to regulate flow of water into tank and starts machine. Threads paper through feed and tension rolls and wraps end of paper around rewinding roll. Turns handwheels to adjust tension and friction rolls. Turns switch to start rotary brush that throws spray of water from tank onto underside of paper. Pounds paper with wooden club to prevent loose winding on roll. Observes feeding, spraying, and winding of paper for excess moisture and loose winding, and makes adjustments. Loads rewound roll onto dolly, using hoist, and pushes it away from machine.
GOE: 06.04.14 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

534.685-014 FRICTION-PAINT-MACHINE TENDER (fabrication, nec)
Tends equipment that applies and dries strip of friction paint (striking material) on cards of matchbook covers and matchbox slides: Loads stack of cards into machine feed magazine. Observes machine feed to prevent jam of cards on conveyor. Inspects friction paint coverage for specified thickness of application, and adjusts friction paint feedwheels, using handtools. Removes paper dust and dirt from revolving feedwheels with knife. Fills machine reservoir with friction paint. Turns steam valves and reads gauge to maintain specified temperature in conveyor-drier.
GOE: 06.04.21 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

534.685-018 OILING-MACHINE OPERATOR (paper & pulp; paper goods)
Tends machine that immerses hardboard sheets in oil to impart smooth finish and cuts sheets to size preparatory to tempering: Adjusts position of saws to cut sheets to specified length and width. Observes gauge and turns steam valve to fill oil reservoir and maintain oil at prescribed temperature. Starts feed conveyors, saws, and automatic sheet-stacking mechanism. Feeds uncoated sheets into machine and pulls table saw across end of each sheet before coating to remove irregular edges. Observes sheets for presence of coating flaws, scratches, and oil droplets on surface. Grades hardboard sheets according to defects and size. Places board beneath each stack of oiled sheets and inverts top sheet to protect surfaces against marring during storage or further processing. Keeps records of rejected hardboard sheets for shift log.
GOE: 06.04.14 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

534.685-022 PAPER COATER (paper & pulp; paper goods)
Tends machine that dyes paper to specified color: Pours prepared dye solution into machine receptacle. Loads roll of paper in machine. Pulls lever to start device that applies color solution to paper. Observes paper as it passes through machine to detect blemishes, streaks, or other defects. Replenishes dye solution and loads machine with paper when depleted.
GOE: 06.04.14 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

534.685-026 PARAFFIN-MACHINE OPERATOR (paper goods)
Tends machine that sprays fiber can lids or paperboard box blanks with par affin wax to make items moistureproof or airtight: Fills machine reservoir wit paraffin chunks and opens steam valve to heat and liquefy paraffin. Place items into machine that automatically sprays melted paraffin wax on inner sur faces as items pass under nozzle. Examines sprayed items to ensure uniformit of coating. Stacks finished items on trays or handcart for removal to storag area. May keep daily production records.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

534.685-030 VARNISHING-MACHINE OPERATOR (print. & pub.)
Tends machine that coats paper decals with varnish: Mixes varnish accordin to formula and fills machine reservoir. Starts machine and feeds sheets of pape decals between rollers that coat them with varnish.
GOE: 06.04.21 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

534.685-034 WET-END HELPER (wood prod., nec)
Tends wet end of machine that cuts and paints wallboard, as directed b FOURDRINIER-MACHINE OPERATOR (paper & pulp; paper goods): Turn valve to regulate flow of paint onto wet board. Turns handwheel to adjust cut ters. Guides end of wet-board mat from pressure rolls onto tipple rolls at star of each new run. Observes wet-board panels and pulls lever to drop defectiv boards into recovery box. Sharpens and cleans cutter as it rotates. Removes an replaces screens and pressure rolls, using hoist and handtools. May weigh sam ple of wet board, dry sample in electric retort, and compute moisture loss an estimated density, using standard conversion tables or slide rule. May measur thickness of board, using calipers. May record production data in logbook.
GOE: 06.04.14 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

534.686-010 PAPER-PROCESSING-MACHINE HELPER (paper & pulp paper goods)
Mounts rolls of paper on machines, such as combiner, coating machine, an waxing machine, and performs related duties to assist machine operators: Inserts metal shaft through core of paper roll, positions roll on machine feedrack using hoist, and clamps shaft in bearings. Shoves core on rewind shaft and positions shaft in machine rewind rack. Assists operator in threading pape through machine, and starts end of paper around rewind core. Splices breaks in paper, using tape and hot iron. Removes rewound roll from machine with hoist, and pulls shaft from core by hand. Performs other duties as described under HELPER (any industry) Master Title. May stack cardboard containe blanks and return blanks to operator for further processing of untreated sides of blanks. May examine coating of blanks for imperfections and notify operato when imperfections occur. May be designated according to worker assisted, as Coating-Machine-Operator Helper (paper & pulp; paper goods); Combiner-Operator Helper (paper & pulp; paper goods); Supercalender-Operator Helper (paper & pulp); Waxing-Machine-Operator Helper (paper goods).
GOE: 06.04.14 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 81

534.687-010 CONE TREATER (paper goods)
Treats paper cones with mixture of turpentine and beeswax: Combines specified amounts of turpentine and beeswax in vat and adjusts controls to heat mixture to specified temperature. Fills wire basket with paper cones and lowers basket into heated mixture until thoroughly saturated (treated). Raises basket, drains mixture from cones, and sets basket aside for transfer to drying cabinet.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

534.687-014 CREPING-MACHINE-OPERATOR HELPER (paper goods)
Assists CREPING-MACHINE OPERATOR (paper goods) in forming crepe paper: Trucks paper rolls to machine and storage areas. Weighs finished rolls and cleans working area. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.40 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

535 FORMING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with imparting a desired shape to paper and related material.

535.482-010 WAD-COMPRESSOR OPERATOR-ADJUSTER (ordnance) alternate titles: compressor operator-adjuster
Operates battery of compressor machines and drying ovens to press and dry cardboard-fiber and wood-flour slurry to form filler wads for shotgun shells: Turns valves to fill compressor jackets with slurry and to heat drying ovens. Starts feed tank agitator, wad compressors, and conveyors. Observes molded wads emerging from compressor punches to detect concave tops indicating fouled punch tip. Unbolts punch tube and cleans accumulated slurry from tip, using compressed air or water. Replaces bent or broken punches, tubes, knock-off fingers, and transfer plates, using handtools. Weighs specified number of dried wads from each batch of slurry on grain scale, and computes quantity of water needed to produce wads of specified weight. Measures thickness of wads, using dial gauge, and adjusts spacing between top and bottom punches to change wad thickness, using micrometers, feeler gauges, and precision gauge blocks. Washes accumulation of slurry from machine. May operate and adjust battery of stationary pneumatic compressors that press slurry into holed wads for further compressing into base wads and be designated Base-Wad Operator-Adjuster (ordnance).

GOE: 06.02.18 STRENGTH: L GED: R3 M3 L2 SVP: 4 DLU: 77

535.685-010 PLATE WORKER (paper & pulp) alternate titles: composition-board-press operator; high-density-press operator; hot-press operator

Tends steam-heated hydraulic press which compresses paper and cardboard to form insulation board: Positions preformed cardboard and paper on bed of press. Starts press to lower ram, and turns steam valve to bond paper and cardboard together. Closes valve, raises ram, and removes finished board from press. May tend semiautomatic press that forms insulation panels and transfers them to trimming and painting machines, monitoring temperature and pressure gauges to maintain press conditions within plant standards. May measure thickness of pressed board, using micrometer, to determine conformity of product to specifications.
GOE: 06.04.04 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

539 OCCUPATIONS IN PROCESSING OF PAPER AND RELATED MATERIALS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with effecting the composition, texture, shape, color, consistency, and finish of paper and related materials.

539.130-010 SUPERVISOR, HARDBOARD (wood prod., nec)

Supervises and coordinates activities of workers engaged in cutting peeler log cores into chips, grinding chips into pulp, and pressing pulp into insulation board or hardboard: Observes various processing operation and reads dials and charts to verify conformance of products to specifications. Inspects and tests samples of chips, mat, and hardboard for water absorption, resin and wax content, internal bond, modulus rupture, weight, and dimensions, using laboratory equipment. Trains and assign tasks to new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

539.130-014 SUPERVISOR, WET ROOM (paper & pulp)

Supervises and coordinates activities of workers engaged in screening, pressing, sheet-forming, and baling pulp used in making paper: Trains workers in operation of equipment. Reads dirt and moisture test reports and orders adjustments made to machinery to obtain pulp of specified quality. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M4 L3 SVP: 8 DLU: 77

539.131-010 SUPERVISOR, WET END (wood prod., nec)

Supervises and coordinates activities of workers engaged in cooking and processing wood chips to form pulp, and in processing pulp to form hardboard or insulation board. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

539.132-010 SUPERVISOR, PAPER MACHINE (paper & pulp)

Supervises and coordinates activities of workers engaged in operating papermaking machines to make cardboard, paper, and pulp sheets from pulp stock, and winding and cutting paper sheets: Directs workers in installing wet and dry felts and wire-mesh belts in machine, and in threading paper through feed, press, drier, and calender rolls. Observes consistency of pulp and reads laboratory reports of moisture, caliber, and oil tests to verify conformation of product to quality control specifications. Supervises workers in requisitioning, repairing, and maintaining wire-mesh belts, wet and dry felts, and machine accessories and parts. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to machines operated by workers supervised as Fourdrinier-Paper-Machine Supervisor (paper & pulp); or according to product as Superintendent, Board Mill (paper & pulp).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

539.132-014 SUPERVISOR, PULP PLANT (paper & pulp)

Supervises and coordinates activities of workers engaged in cooking, bleaching, and screening pulp and in making cooking and bleaching liquors to prepare pulp for use in making paper: Trains workers in operation of equipment. Reads laboratory reports and observes cooking, bleaching, screening, and liquor-making operations to verify that specified procedures are followed and that products meet specifications. Observes level of pulp in storage chests, and directs workers in routing pulp from bleachers to chests, to ensure that pulp of specified quantity and quality is available for delivery to papermaking machines. Inspects equipment, such as pumps and digester shells, for leaks and worn bearings, and schedules shutdown of equipment for maintenance and repair. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to activities of workers supervised as Supervisor, Bleach Plant (paper & pulp).
GOE: 06.01.01 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 78

539.132-018 SUPERVISOR, REPULPING (paper & pulp) alternate titles: head-stock operator

Supervises and coordinates activities of workers engaged in repulping, refining, and adding colors and clays to ground woodpulp and broke: Reads production order to determine operating sequence, type and length of fibers to use, and specified amounts and mixture of colors and clays. Directs flow of materials to meet production schedules. Compares laboratory test results with production specifications and confers with department supervisors to ensure that pulp meets quality control standards. Directs training of new workers, and instructs them in safety procedures. Initiates promotions within department. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

539.134-010 SUPERVISOR, PAPER TESTING (paper & pulp; paper goods)

Supervises and coordinates activities of workers engaged in testing paper and pulp products, and in calibrating and maintaining related equipment: Assigns duties to workers and instructs them on new test procedures. Confers with company officials to develop new products and resolve customer complaints. Analyzes test reports to verify product adherence to company standards. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

539.137-010 SUPERVISOR, RAG ROOM (paper & pulp)

Supervises and coordinates activities of workers engaged in sorting, cutting, cooking, and bleaching rags for use in making paper. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

539.137-014 PRODUCTION SUPERVISOR (nonmet. min.)

Supervises workers engaged in tending machines that process and package recycled newspapers into cellulose insulation: Observes sorting, equipment loading, processing, and packaging operations for conformance to establishment specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 86

539.362-010 CYLINDER-MACHINE OPERATOR (paper & pulp; wood prod., nec)

Operates cylinder-type machine to make paper, cardboard stock, insulation board, or pulp sheets according to specifications: Turns valves to start flow of water and specific types of pulp stock into designated cylinder vats. Starts machine and turns handwheels and valves or adjusts panel controls to regulate flow of stock onto wire mesh of revolving pickup cylinders and onto wet felt mats on which continuous sheets of product are formed. Inspects machine products, reviews laboratory reports, and observes machine operations to determine causes of defects in paper. Regulates and coordinates stock flow, speed of pickup cylinders and wet felts, and water removal by vacuum action of cylinders and by pressure of rolls on pulp mat, according to type of stock and specified kind, grade, weight, and moisture content of product. Directs workers engaged in replacing felts, threading sheets through drier rolls, slitting and cutting sheets to specified dimensions, and winding sheets onto roll. May be designated according to product made as Cylinder-Machine Operator, Pulp Drier (paper & pulp).
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

539.362-014 FOURDRINIER-MACHINE OPERATOR (paper & pulp; paper goods) alternate titles: paper-machine operator

Operates wet end of fourdrinier machine to make paper, sheet pulp, or insulation board from pulp stock: Turns valves and pushes buttons, flips switches, or moves levers of control panel to start flow of pulp stock into machine headbox and flow of white water to dilute pulp stock. Starts machine and turns wheel to adjust flow of stock onto wire-mesh belt on which paper or other product is formed. Observes formation of product and removal of water, and inspects samples of completed product. Adjusts volume and speed of stock flow, speed and pitch of wire belt, frequency and amplitude of belt shake, water removal by suction boxes and rolls, and pressure of rolls on pulp mats, according to type of pulp stock and kind, grade, and weight of product specified. Tends auxiliary equipment, such as agitators, pumps, and filters. Gives instructions to BACK TENDER, PAPER MACHINE (paper & pulp) 534.662-010 in operating machines that dry, size, calender, wind, or cut paper or paper products. Replaces or directs workers engaged in replacing wire belts and drying-roll felts. Adjusts, cleans, repairs, and replaces rolls and other machine parts, using handtools. May install and adjust dandy roll to impress watermark on paper. May install and adjust paint roll to paint surface of insulation board.
GOE: 06.02.14 STRENGTH: M GED: R3 M2 L3 SVP: 6 DLU: 81

539.362-018 SLURRY MIXER (ordnance)

Operates attrition mill, hydrabeater, and related equipment to produce slurry for subsequent processing into shotgun shell wads: Feeds bagasse and scrap paper into attrition mill that shreds material. Turns handwheel to adjust hydrabeater blades according to slurry consistency specified, and adjusts timer for prescribed cycle. Weighs and measures specified quantities of milled material, wood flour, starch, and dyes, according to formula, and dumps ingredients into hydrabeater in prescribed sequence, using lift truck. Drains unabsorbed water from measured quantity of slurry into graduated cup to determine slurry *freeness* and adjusts beating time and water content of next batch accordingly to maintain uniform consistency of batches. Starts pump to transfer slurry into dilution tank, starts agitator in tank, and admits metered amount of water to dilute slurry to specified consistency. Pumps slurry into holding tank and signals WAD-COMPRESSOR OPERATOR-ADJUSTER (ordnance) to start molding machine.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

539.364-010 PULP-AND-PAPER TESTER (paper & pulp)

Tests samples of each batch of pulp and run of paper, using standard testing equipment and chemical analyses to control quality and uniformity of products:

Measures acidity of pulp, using pH meter. Measures weight, thickness, and bulk of standard paper sample, using micrometer and scales. Determines liquor content of pulp, using standard chemical analyses. Makes hand sheet from pulp, using wire screen, press, and drying oven. Counts dirt specks in unit area of sheet, using microscope. Tests hand sheet and paper samples for bursting, tearing, and folding strength, using specified test equipment. Measures brightness of hand sheet and paper, using *reflectance meter* and compares color with standard colors. Records test data and prepares report for machine operators. May be designated according to product tested as Paper Tester (paper & pulp); Pulp Tester (paper & pulp); or according to processing stage as Dry-End Tester (paper & pulp); Wet-End Tester (paper & pulp).
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 78

539.367-010 FINAL INSPECTOR, PAPER (paper & pulp) alternate titles: head paper tester

Inspects paper rolls and reviews reports on production to maintain quality control: Compares test report with specifications for indication of substandard production. Examines paper rolls to verify test reports indicating substandard production, and orders rejection of paper not meeting specifications. Evaluates previous tests and machine detail records to determine corrective action. Notifies FOURDRINIER-MACHINE OPERATOR (paper & pulp; paper goods) of machine adjustments required to produce paper of specified quality. Compiles test records of paper produced by each machine to maintain quality control of future production. Reviews work of other inspectors for adherence to prescribed procedures. Schedules testing of products to verify their conformance to customer specifications.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

539.367-014 WATER-QUALITY TESTER (paper & pulp)

Reviews data from meters, recorders, and sampler, and inspects equipment in mill to ensure compliance with government standards: Records readings from plant measuring devices, such as recorders and meters. Removes and replaces record charts. Computes effluent flow from chart for sampling period. Collects waste water samples, using sample bottle. Submits samples to laboratory for testing. Writes report on findings. Observes operation of mill effluent system to determine areas of abnormal pulp spills, leaks, or defects in piping. Inspects machine sampling and measuring devices to determine source of problem or if equipment is malfunctioning. Reviews sampling and operational reports to ensure that results are within limits of water quality standards. Conducts tests, such as pH and dissolved oxygen, to ascertain effluent levels. Notifies supervisor of excessive fluctuation in waterflow or major breakdown in equipment. Records findings on daily logsheet.
GOE: 05.07.04 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

539.387-010 CHIP TESTER (paper & pulp)

Tests samples of purchased wood chips, used in making pulp, to determine moisture content and quality: Observes dumping of chips into receiving pit and starts conveyor that transfers chips to screening and storage areas. Draws measured sample from conveyor, places chips in drying oven for specified period of time, and records dry weight to determine weight loss. Places additional sample of chips in pilot screen to separate unsuitable wood, such as sawdust, slivers, and oversized chunks. Removes bark from acceptable portion, reweighs sample, and records data on chip quality form. Sweeps and cleans work area. May test samples for acidity and *freeness*, using standard testing equipment.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L2 SVP: 3 DLU: 77

539.482-010 CALENDER OPERATOR, INSULATION BOARD (wood prod., nec)

Operates machines in tandem to press rough insulation board into specified caliper (thickness), calender (iron) it into smooth finish, and paint and dry it: Pumps paint from portable tank into machine well. Turns handwheel to space paint rolls and control specified paint spread on board. Starts machines and turns valves to start flow of steam and regulate temperature in calender rolls and paint-drying oven. Weighs unpainted and painted sample boards to calculate amount of paint adherence. Observes processing to ensure that finished boards meet quality control specifications.
GOE: 06.02.09 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

539.485-010 WEIGHT TESTER (paper & pulp)

Tends machine that records variations in weight along sample strip of paper or other material: Inserts end of sample strip into testing machine to obtain reading on graph of basic weight of sample. Turns dial to bring weight indicator to center line on graph to calibrate machine for weight of material tested. Starts feed rolls that carry sample strip through machine to record variations in weight of material on graph. Calculates percentage of variation in material weight, using formula or chart. Fills machine ink reservoir, using dropper.
GOE: 06.03.01 STRENGTH: S GED: R3 M3 L3 SVP: 2 DLU: 77

539.487-010 INSPECTOR, FIBROUS WALLBOARD (wood prod., nec)

Inspects each phase of processing in manufacture of hardboard, insulation board, and acoustical tile to ensure conformity to specifications: Weighs samples of wet and dry chips, pulp, and board; and calculates moisture content. Tests tensile strength of products, using breakage tester. Examines boards for oil spots, scratches, scuffs, broken flanges, and lug marks. Compares acoustical tile with template for location of drilled holes and cleanness of cut. Measures sample boards, using tape and square frame. Examines flanges for depth and sharpness of cut, using measuring device. Tags and records offgrade products. May conduct titration tests to determine acidity of pulp.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L2 SVP: 4 DLU: 77

539.562-010 HIGH-DENSITY FINISHING OPERATOR (wood prod nec)

Sets up and operates trimming and coating machines to cut, bevel, and pai sheets of insulation board emerging from forming press: Adjusts position ar angle of saws to cut and bevel stock according to plant specifications for eac type of board, using wrenches. Cleans and adjusts clearance of paint brushe on coating machine to apply uniform coat without brush streaks and foreig matter in paint. Moves controls to start flow of paint to brushes and to regula drying and cooling temperature of coating machine to prevent coating irregula ities, scorching of paint, fire, and explosion. Observes trimming and coating op erations and regulates speed of feed conveyor, transfer mechanisms, and di charge conveyor to prevent jamming, faulty coating, and ragged or irregularl beveled edges. Culls boards not meeting appearance or dimensional standard Reports equipment malfunctions. Cleans paint lines and reservoir, using solve and brushes. Records production output and number of rejected boards in shi log. May set up and operate machines to trim, coat, and pack insulation ti and direct activities of tile inspecting and packing crew and be designated Til Machine Operator (wood prod., nec).
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

539.565-010 VULCANIZED-FIBER-UNIT OPERATOR (paper goods)

Tends machine that compresses and vulcanizes layers of paper or related ma terials into homogeneous sheets: Reads job order to determine type and thic ness of fiber sheets to be made. Inserts metal shafts through core of paper rol and mounts roll onto machine, using hoist. Tightens holding collars on feed ro shaft to adjust tension on paper roll. Sets counter to record number of laye of paper needed to obtain desired thickness. Threads paper under guide ba through acid immersion tank, and over calender rolls. Starts machine and ol serves compressing and vulcanizing process, adjusting tension of paper rolls a needed. Cuts vulcanized sheet from roll, using knife. Directs removal of vulca ized sheets from machine and immersion of sheets into leaching vats for spec fied period. Maintains production records.
GOE: 06.02.04 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

539.587-010 LABORER, RAGS (paper & pulp) alternate titles: apron op erator

Performs any combination of following tasks involved in preparing rags fo use in making paper: Cuts material, such as clips, buttons, and elastic fro rags, using hand shears or automatic circular knife. Removes dusted rags fro conveyor of thrasher (dusting machine), weighs and records weight of rags, an trucks them to cutting machine. Removes cover from bleach boiler, allowin rags to fall into stock cars. Marks cars according to grade and type of rags an pushes cars to washing machines. Removes washed rags from drainer (seaso ing bin), places them in stock cars, and pushes cars to beater room. May b designated according to work performed as Bleach-Boiler Puller (paper & pulp); Cutter (paper & pulp); Stock Pitcher (paper & pulp).
GOE: 06.04.40 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

539.667-010 CONTROL INSPECTOR (paper & pulp; wood prod., nec)

Inspects pulpwood construction board, such as ceiling tiles, insulation panel and siding, for conformity to appearance and dimensional standards and pack ing and labeling specifications: Examines materials for surface defects, such a flaws in paint, excess or insufficient glue on laminated panels or joints, warpe panels, and ragged edges. Verifies thickness, size, and squareness of boards o panels, using calipers, carpenter's square, and rule. Starts circular saw to cu samples from finished products for testing flame resistance, strength, and insu lation qualities by control laboratory. Notifies supervisor or equipment operato when board does not meet specifications to facilitate control adjustments. Pre pares reports of defects discovered, origin of defects, shift production, and num ber of rejects for quality control personnel. Examines packing materials and ob serves packing activities to ensure that customer and plant specifications ar met and that products are appropriately labeled for shipment. Notifies super visor to direct destruction, reprocessing, or repacking of faulty shipments. Ma perform standard quality control tests on products, using prescribed laborator equipment and procedures. May be designated according to product inspecte as Siding-Coreboard Inspector (paper & pulp; wood prod., nec); or accordin to work area assigned as Coating-Line Checker (paper & pulp; wood prod. nec).
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

539.685-010 COATER OPERATOR, INSULATION BOARD (woo prod., nec)

Tends machine that automatically smooths and paints flanges of acoustica tile: Starts machine. Turns dial to control temperature of pressing irons. Adjust pressure of irons to obtain smooth finish on flanges. Adjusts rollers, usin wrench, to control amount of paint applied to flanges as tile moves on con veyor. Observes processing and makes necessary adjustments.
GOE: 06.04.21 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

539.685-014 IMPREGNATION OPERATOR (paper goods)

Tends machines that impregnate fiber tubing, pipe, or conduit with pitch Loads items into treatment tank with hoist and closes tank lid. Presses butto to start pumps that circulate pitch in tank. Turns valves and observes gauge to control vacuum pressure and temperature. Records instrument readings a designated intervals. Removes impregnated tubes from treatment tank and places them in water tank to cool, using hoist.

GOE: 06.04.09 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

539.685-018 MOLDING-MACHINE TENDER (paper & pulp)

Tends molding machine that casts articles, such as pots, cups, trays, and synthetic soil blocks from pulp slurry: Opens valve to admit water into pulp-mixing vat. Weighs and dumps specified amounts of scrap paper, rosin, wax, and other binders into vat. Transfers mixed slurry to storage tank or slurry tank. Activates forming heads to dip molds into slurry tank. Monitors operation of vacuum suction that fills forms or molds. Weighs amount of slurry gathered in random molds to ensure quality control. Adjusts timers to control curing and drying cycles. Observes pickup die which removes cured articles from forming heads or molds. Cleans residue from molds, using water hose. May tend machine that forms fiber pipe or conduit around mandrels of specified sizes and be designated Forming-Machine Operator (paper & pulp).
GOE: 06.04.09 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

539.685-022 PUMP-PRESS OPERATOR (paper & pulp)

Tends equipment that forms wet pulp into bales according to specifications: Turns valves to regulate flow of pulp slush from main supply line to pulp machine headbox. Starts equipment, such as vacuum and water pumps, mix tank agitator, cyclone drier and fluffer, shredder disks, screw conveyor, and compressor, to mix, dry, shred, and bale pulp of specified moisture content. Examines pulp for specified consistency and adjusts panel controls to correct inconsistency.
GOE: 06.04.14 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

539.685-026 SCREEN HANDLER (paper & pulp)

Tends equipment that loads and unloads press and humidifier unit that press and treat hardboard, performing any combination of following tasks: Starts conveyor to transfer unpressed mats of woodpulp to automatic press loader. Aligns shelves of press loader with opening in press, and moves controls to transfer mat to pressing screen or metal plate on press bed. Moves controls to align press unloader with press discharge and to activate tongs that grasp pressing screen or plate to pull hardboard from press onto unloader shelves. Lowers unloader and retracts tongs. Moves humidifier transfer car to press unloader and starts hydraulic mechanism that aligns openings in car with shelves of unloader. Starts unloader rollers that transfer pressed hardboard sheets onto humidifier car. Pushes car to humidifier, and activates piston that transfers car to humidifier. Unloads humidifier car after it is automatically discharged from humidifier by aligning rollers of unloading device with car and feeding boards between rollers that pile boards for packing. Assists HUMIDIFIER OPERATOR (concrete prod.) to remove pressing screens manually from press and transfer them to dolly. Examines screens for damage or defects and marks faulty screens, using crayon. Transfers usable screens to press loader for reuse.
GOE: 06.04.14 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

539.685-030 WET-MACHINE TENDER (paper & pulp) alternate titles: lap-machine tender; pulp-machine operator

Tends battery of machines that form continuous sheets of pulp from woodpulp slush: Starts machines and turns valves to regulate flow of slush pulp into machine vat. Turns handwheels to adjust feed cylinders in vat, pressure of press rolls, and tension on pickup felt to produce pulp sheet of specified moisture content. Cuts and folds continuous sheet into laps and loads laps onto skid or handtruck. May install cutters to cut sheets to specified dimensions.
GOE: 06.04.14 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

539.686-010 CUTTER, WET MACHINE (paper & pulp) alternate titles: roll skinner; sheet taker; skinner; web-machine tender; wet-press tender

Cuts and folds continuous pulpwood sheet into laps as it emerges from wet-machine cutter rolls, using lap cutter (pointed wooden stick) or power-cutting bar. Piles laps on rack truck or conveyor for transfer to hydraulic press, inserting wire-mesh screen between each lap. May compress pile of laps in hydraulic press to remove specific amount of moisture. May assist in threading pulp sheet through press rolls and in other duties.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

539.687-010 WINDER HELPER (paper & pulp)

Performs any combination of following tasks in papermaking: Places cardboard roll core on steel shaft, and positions shaft on winding reel, using hoist. Threads paper through drier and calender rolls, and wraps end around roll core. Observes paper winding on roll, and flags defects with colored chalk mark or by inserting paper strip in roll. Lifts full rolls from winding reel onto dolly, using hoist, and pushes them to finishing area. Turns valves to spray steam, air, and water on paper in preparation for calendering. Pulls broke from drier and calender rolls. Cleans calender rolls, using hand scraper, solvent, and rags. Turns handwheel to adjust tension on paper. Assists MACHINE-CLOTHING REPLACER (paper & pulp) 629.361-010 in changing papermaking machine clothing, such as wire-mesh belts and wet and dry felts. Oils and greases machine. Cleans wire-mesh belt, wet felt, and machine frame, using water hose, airhose, soap, brushes, and rags. May inflate shaft designed to grip inside of roll core and prevent slipping of paper while winding. May push rolls of paper into position on scales for weighing and mark rolls of paper for shipment, using stencil and stencil brush.
GOE: 06.04.14 STRENGTH: H GED: R2 M2 L1 SVP: 3 DLU: 82

54 OCCUPATIONS IN PROCESSING OF PETROLEUM, COAL, NATURAL AND MANUFACTURED GAS, AND RELATED PRODUCTS

This division includes occupations concerned with the post-extraction phases involved in preparing for commercial use the products of oil shales, oil and gas wells, and coal mines. Includes preparing and refining petroleum and recovering refinery byproducts; manufacturing asphalt and tar paving mixtures and blocks and asphalt felts and coatings; preparing and manufacturing gaseous, liquid, and solid fuels including coke, coke-oven byproducts, and commercial gas; and processing tars for the chemical industry. Occupations concerned with treating wood are included in Division 56.

540 MIXING AND BLENDING OCCUPATIONS

This group includes occupations concerned with combining and mingling materials to produce a single mass.

540.382-010 COMPOUNDER (petrol. refin.)

Controls equipment to blend specified oils and additives to obtain oils possessing specified characteristics: Reads specifications to determine batch characteristics and type and weight of ingredients to be used. Selects and weighs industrial, automotive, and special lubricating oils, and additives, such as antioxidants, corrosion inhibitors, detergents, dispersants, pour-point depressants, foam inhibitors, and viscosity-index improvers. Turns valves and pours ingredients to fill mixer and pump containers. Starts equipment and adjusts temperature, time, and speed controls to blend ingredients, adding additional ingredients during blending cycle as specified. Records type and quantity of materials used.
GOE: 06.02.12 STRENGTH: L GED: R3 M3 L3 SVP: 7 DLU: 77

540.462-010 BLENDER (petrol. refin.) alternate titles: gasoline finisher; lead blender

Controls equipment to blend straight run or natural gasoline with chemicals, tetra-ethyl leads, and light distillates of crude oil to produce commercial fuel, according to formula: Reads blending schedules to determine specified components and quantities to be blended. Turns controls to open valves and starts pumps or notifies STILL-PUMP OPERATOR (petrol. refin.) to transfer gasoline to blending tanks. Computes amount of additives or sets weighing machine that automatically weighs quantities of additives in ratio to quantity of gasoline. Turns handwheels to open valves and spray jets to admit and circulate specified quantities of gasolines, additives, and chemicals in mixing tanks. Moves controls of pumps, agitators, and mixers to blend mixture mechanically or with air agitation. Observes temperature gauges and turns valves to regulate and maintain specified temperature in tanks. Draws sample of mixture for laboratory analysis. Repeats blending process as required by laboratory recommendations, or starts pumps to draw off blended gasoline to storage tanks or leading racks. Opens valves to draw off chemical and lead residue. Records quantity blended and materials used. May lubricate, adjust, and repair pumps, agitators, and mixers. May test products [TESTER (petrol. refin.)]. May operate control panels utilizing electronic computers and controls, to blend products in pipelines (inline blending). May be designated according to type of additive as Ethyl Blender (petrol. refin.). May blend asphalt with petroleum products to improve their quality, viscosity, and performance and be designated Asphalt Blender (petrol. refin.).
GOE: 06.02.12 STRENGTH: L GED: R3 M3 L2 SVP: 6 DLU: 77

540.585-010 MIXER OPERATOR, CARBON PASTE (elec. equip.; smelt. & refin.)

Tends machines that mix ground coke, coal, anode butts, and pitch into carbon paste and press paste into anodes or electrodes: Sets automatic scale and steam regulator to specified weight and pressure. Opens hopper valves to load specified amounts of coke, coal, butts, and pitch scales into batch car. Starts equipment and charges mixer with mixing ingredients. Turns valve to admit liquid pitch into mixer. Records charging and discharging time of mixer. Periodically inspects system to verify consistency of carbon paste and dimensions of anodes or electrodes emerging from press. Records data for each batch processed. May lubricate and perform minor repair on machines. May tend machine that grinds material for electrodes [GRINDER, CARBON PLANT (smelt. & refin.)]. May tend machines, using panelboard, and be designated Carbon-Paste-Mixer Operator, Panelboard (elec. equip.; smelt. & refin.).
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

540.686-010 COMPOUNDER HELPER (petrol. refin.)

Assists COMPOUNDER (petrol. refin.) in blending oils: Gauges supply of oil in tanks. Segregates and dumps barrels of oil into respective tanks. Takes samples of blended oil to laboratory for analysis. Loads and unloads tank cars [LOADER (any industry) I]. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.12 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

540.687-010 SEAL MIXER (elec. equip.) alternate titles: seal-mixing operator

Mixes ingredients according to formula to compound seal used to attach covers to storage-battery containers: Weighs specified amounts of ingredients,

using gram scale, and dumps ingredients into pail. Starts mechanical mixer. Lifts pail manually to sink mixer blades into ingredients. Determines when ingredients are mixed and lowers pail. Pours mixture into metal cylinders for use in hydraulic extrusion press. Cleans equipment, using water and brushes. May adjust and clean extrusion press, using handtools, brushes, and water. May carry covers and seal to extrusion press.
GOE: 06.04.34 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

541 FILTERING, STRAINING, AND SEPARATING OCCUPATIONS

This group includes occupations concerned with separating desirable materials by means of filtering, straining, sifting, squeezing, centrifugal force, or agitating devices.

541.362-010 DESULFURIZER OPERATOR (steel & rel.) alternate titles: gas desulfurizer
Controls equipment, such as vats, thionizer tower, absorbing tower, and autoclave, arranged in series to recover sulfur from coke-oven gas: Turns valve to admit coke-oven gas into absorbing tower. Starts pumps that force solution containing arsenic compound and soda ash through tower. Pumps resulting foul solution into thionizer tower, and admits compressed air to precipitate sulfur and form froth which overflows into tank. Filters slurry [FILTER OPERATOR (any industry)], and washes salts from caked sulfur. Melts sulfur in autoclave, and casts it into pans. Determines alkalinity of absorbing solution by titration tests, and directs helper to add soda ash or arsenic compound. Observes meters and gauges to control temperature of solution. Punches dirt from holes in absorbing tower sprays with bar, and lubricates equipment.
GOE: 06.02.11 STRENGTH: M GED: R4 M3 L2 SVP: 6 DLU: 77

541.362-014 PUMP OPERATOR, BYPRODUCTS (steel & rel.) alternate titles: pump tender; tar-and-ammonia pump operator
Operates equipment to cool, condense, and separate tar and ammonia from coke-oven gas and pump separated substances to specified locations: Turns valves to transfer materials from collecting mains through cooler, scrubbers, and *decanter*. Starts pumps, reads gauges and thermometers, and adjusts valves to regulate temperatures, pressures, and rate of flow of gas, tar, ammonia liquor, and water. Observes flow of tar from decanter and manually adjusts seal to alter level of interface between tar and liquor and regulate liquor settling time. Pumps gas to next process, tar to storage tanks, and liquor to collecting mains or to liquor storage tanks. Records temperature, pressures, and amount of tar and liquor pumped. Repairs pipes, using handtools. Turns valves to bypass equipment requiring repair or cleaning. May flush interior of coils with hot ammonia liquor to remove tar. May adjust and lubricate floats, valves, and other equipment, using handtools and lubricating equipment.
GOE: 06.02.17 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

541.382-010 COAL WASHER (mine & quarry) alternate titles: coal-washer tender; wash-box operator; washer operator
Operates equipment to size and wash coal for shipment or further processing: Starts equipment, such as launders, tables, shakers, sizing screens, and conveyors. Regulates flow of coal and water to separate coal from slate, rock, and other foreign material and transfers cleaned and sized coal to loading chutes or storage. Observes equipment, gauges, and indicator lights and adjusts equipment to ensure maximum cleanliness of product. May lubricate and repair equipment and replace parts, using handtools. May test refuse samples to determine coal content, using scales to weigh material precipitated from sample by chemical reaction.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

541.382-014 CRUDE-OIL TREATER (petrol. & gas) alternate titles: dehydrator operator; production operator; pumper; treater
Operates chemical, electrical, and centrifugal oil-treatment units to remove sediment and water from crude oil before transporting oil by pipeline to refineries: Opens valves and starts pumps to pump oil from storage tanks to treating units. Opens valves to mix specified chemicals with oil, and adjusts controls to heat mixture to specified temperature. Starts centrifugal machines that break up oil and water emulsions and drain off water. Opens valves and starts pumps to transfer oil into settling tanks where sediment is precipitated from oil. Tests sample in gravity- or centrifugal-separation machine to determine content of oil specified for pipeline transportation. Pumps treated oil into pipelines leading to refinery. Cleans and lubricates motors, pumps, and other moving parts of units. Records data, such as volume of oil treated, operating temperatures of units, and test results. May operate pumps at oil well sites [OIL PUMPER (petrol. & gas)]. May tend treating-plant equipment to remove impurities from natural gas [GAS TREATER (any industry)].
GOE: 06.02.12 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

541.585-010 CENTRIFUGE-SEPA..ATOR TENDER (nonfer. metal)
Tends centrifuge separator that purifies used coolant oils from rolling mill machines: Opens valves and starts pumps to transfer oil from machine pit tanks to holding tank. Pulls control levers to add specific amounts of sulfuric acid and water to oil. Opens valves to allow mixture to flow through centrifuge and back to pit tanks of machine. Orders supplies of oil and acid from storeroom and keeps records of solutions used. Delivers samples of purified oil to laboratory. Replaces filters in centrifuge and cleans centrifuge disks, using wire brush and rags.
GOE: 06.04.12 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

541.665-010 SHAKER TENDER (steel & rel.) alternate titles: shaker operator
Tends shaking screen and conveyor that screen coke to specified size and load it into bins: Estimates amount of coke needed in bins. Starts conveyors and screens, and signals COKE LOADER (steel & rel.) to unload contents. Turns handwheel to adjust vibration rate of screen. Lubricates screen eccentrics and conveyors, using grease gun and oilcan. Patches screens, and assists in changing vibrator coils and splicing belts, using handtools. Cleans walks and floors, using broom and shovel.
GOE: 06.04.12 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

541.682-010 PARAFFIN-PLANT OPERATOR (petrol. refin.) alternate titles: wax pumper
Operates filter presses to separate oil of paraffin distillate from paraffin wax: Installs filter plates, using handtools, and turns handwheel to adjust hydraulic ram pressure. Turns valve to regulate flow of chilled distillate into filter plates. Starts machine to activate hydraulic rams that squeeze oil from distillate as wax solidifies. Observes oil pressed from filter plates, and adjusts ram pressure to extract maximum amount of oil from wax. Scrapes accumulated wax from filter plates into spiral conveyor that carries it to melting pan. Turns valve to regulate flow of steam into melting pan to heat wax. Starts pump to return salvaged distillate from tank to filter press for reprocessing. May be designated according to phase of processing as Leak Operator, Paraffin Plant (petrol. refin.); Press Operator, Paraffin Plant (petrol. refin.).
GOE: 06.02.12 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

541.685-010 HEAVY-MEDIA OPERATOR (mine & quarry)
Tends gravity device that separates coal from refuse: Tests solution in tank for specific gravity, adds pulverized magnetite, and starts oscillating rake to maintain constant density. Opens chute gate to admit coal mixture to tank. Observes coal as it floats over weir onto conveyor. Opens gate to draw off refuse that was raked into discharge chute. Recovers magnetite, drawn off with coal and refuse, from filtering device, using shovel and wheelbarrow.
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

541.685-014 LEAD RECOVERER, CONTINUOUS-NAPHTHA-TREATING PLANT (petrol. refin.)
Tends centrifuge machine to separate lead compound, used in treating gasoline, from treating solution: Starts pumps to force treating solution into cylinder of centrifuge. Starts machine and allows cylinder to revolve until cake of lead compound has separated from solution. Stops machine, if batch-type centrifuge is used, and scrapes cake from cylinder into barrel, or if continuous-type centrifuge is used, starts steam pumps to force cake and liquid from cylinder into tanks as separation progresses.
GOE: 06.04.12 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

542 DISTILLING, SUBLIMING, AND CARBONIZING OCCUPATIONS

This group includes occupations concerned with removing or obtaining gases, condensations, or residue in stills, ovens, or retorts. Includes liquefying and then distilling natural gases.

542.130-010 SUPERVISOR, NATURAL-GAS PLANT (petrol. refin.) alternate titles: plant supervisor
Supervises and coordinates activities of oil field workers operating equipment, such as compressors, boilers, pumps, and dehydration vessels, to remove sediment and water from crude oil, extract natural gas, and separate natural gasoline from gas by means of heat, pressure, and chemical action. Orders flow cycles, pressures, and temperatures of petroleum to be maintained according to process involved and properties of petroleum being processed. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.06.04 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

542.130-014 SUPERVISOR, TAR DISTILLATION (chemical)
Supervises and coordinates activities of workers engaged in operation of stills to distill crude oil, produce pitch, and to recover naphthalene-bearing oils and creosote oils. Trains workers in operation of equipment. Analyzes laboratory reports and test results of materials, and orders process changes as required. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

542.132-010 SUPERVISOR, BYPRODUCTS (steel & rel.)
Supervises and coordinates activities of workers engaged in processing coke-oven gas to obtain byproducts: Directs workers in separating ammonia and tar from gas, scrubbing gas to obtain light-oil, and recovering and refining benzol, toluol, and xylol from light-oil. Studies production reports and orders changes in temperature and circulation rates to produce product of specified quality. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

542.132-014 SUPERVISOR, OVENS (steel & rel.)
Supervises and coordinates activities of workers engaged in carbonizing coal to obtain coke and byproducts. Assigns duties to workers according to production schedules. Examines machinery, equipment, and finished coke and directs

changes in process to promote efficiency and produce product of specified quality. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

542.362-010 HEATER II (steel & rel.)
Controls ovens to carbonize coal according to coking schedules: Removes flue caps, using hook, and determines temperature in flue and condition of nozzles by observing color of flame and using optical pyrometer. Determines type of gases in flue, using gas analyzer. Reads gauges and turns valves to regulate flow of fuel gas and air and maintain specified temperatures in flues. Observes gauges and adjusts weights on governor to maintain specified gas pressure in collecting main. Cleans plugged gas nozzles, using poker. Inspects airflow and gas-reversing mechanisms, and adjusts or repairs equipment, using handtools. Inspects finished coke visually or with pyrometers for temperature and quality, as it is pushed from oven, and adjusts temperature of oven accordingly. Prepares daily reports from gauges and pyrometer readings, noting changes in pressure or temperature. Repairs ovens, using handtools and spray gun.
GOE: 06.02.17 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

542.362-014 REFINERY OPERATOR HELPER (petrol. refin.)
Assists REFINERY OPERATOR (petrol. refin.) in distillation and processing of crude and refined oil: Patrols area and inspects equipment, such as furnaces, distilling units, lines, and pumps, to detect malfunctions and leakage. Reads flowmeters and temperature and pressure gauges, and records data. Adjusts control instruments and dampers on oil burners to maintain specified firing conditions. Reports operating condition of units to REFINERY OPERATOR (petrol. refin.). Turns valves and switches as directed to regulate temperature, pressure, and flow rate of product; to direct flow of product to other units; to maintain specified levels of oil in tanks and towers; and to start, stop, and regulate equipment, such as pumps, compressors, and blowers. Draws samples of product from tanks and towers for laboratory testing. Gauges product in tanks and operates pumps and agitators to mix product or load it into storage tanks. Lubricates, cleans, and repairs equipment. May change recording charts and ink pens. May be designated according to type of processing unit or department as Absorption-Plant-Operator Helper (petrol. refin.); Purification-Operator Helper (petrol. refin.); Refinery Operator Helper, Cracking Unit (petrol. refin.); Refinery Operator Helper, Crude Unit (petrol. refin.). Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.02.12 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

542.562-010 FURNACE OPERATOR (petrol. refin.)
Controls operation of burners to maintain temperature in furnaces of petroleum-processing units according to specifications: Observes temperature, pressure, and flow gauges to verify operating conditions of units, and records data. Starts furnace and turns valves and switches to increase or decrease flow of fuel oil or gas to burner and still to regulate temperature according to processing schedule. Throws switches to place burner on automatic control. Examines furnace to detect overheating of walls and tubes, and leakage of still bottoms or oil tubes. Observes flame distribution and combustion conditions in furnace, color of burner flame, and gas issuing from stack, and moves air damper control to correct combustion conditions and stop flame impingements. Reports irregularities in operation to REFINERY OPERATOR (petrol. refin.). May remove and clean burners, using handtools, brushes, solvent, or steam. May change recording charts [CHART CHANGER (clerical)].
GOE: 06.02.12 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

542.567-010 COKE INSPECTOR (steel & rel.)
Inspects hot coke pushed from ovens and quenched coke passing on conveyor for color, texture, quality, and size: Notifies supervisor to adjust crusher for size of coke specified. Picks irregularly sized and insufficiently carbonized coke from belt and tosses it into reject hopper. Places samples in containers for laboratory testing. Records car number, carrier, tonnage, and grade of coke of each shipment. Observes conveyor belts for breaks and pulled-out lacings and notifies maintenance department.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

542.665-010 OVEN-HEATER HELPER (steel & rel.) alternate titles: heater helper
Assists HEATER (steel & rel.) II in carbonizing coal: Turns handwheel to open and close decarbonizing caps which admit air to flues to burn carbon from gas and air nozzles. Observes pressure gauges, and notifies HEATER (steel & rel.) II if pressure varies from specified limits. Reads pyrometer to determine oven wall temperature. Cleans carbon from plugged nozzles, using poker, and replaces broken nozzles, using handtools. Turns handwheel in emergency to operate automatic reversing machinery. Cleans and lubricates equipment. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.12 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

542.667-010 WHARF TENDER (steel & rel.)
Signals HOT-CAR OPERATOR (steel & rel.) to dump coke onto wharf. Quenches hot spots in dumped coke, using water hose, to prevent burning of conveyor belt. Pushes and pulls lever gates to control flow of coke from wharf onto conveyor belt. Shovels spilled coke onto conveyor.
GOE: 06.04.12 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

542.685-010 PLANT OPERATOR, CHANNEL PROCESS (chemical)
Tends series of burners, located in channel-process burner buildings (hot houses), that produce carbon black by contact of gas flame with collecting channels, from which deposited carbon is scraped: Turns valves to regulate flow of gas or mixture of gas and oil to burners to produce flames that deposit carbon black on channels (flat surfaces). Turns handwheel to bring channels into contact with flame. Opens and closes doors at sides and ends of burner building to regulate draft and compensate for changes in atmospheric conditions, air-fuel mixtures, draft, and fuel consumption. Observes, through building ports, accumulation of carbon black, automatic scraping of accumulation from channel, and flow of carbon black through conveyors to detect malfunction of burners and scrapers and to verify production rate.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

542.685-014 SUBLIMER (chemical)
Tends equipment that sublimates (refines by vaporization) crude salicylic acid derived from coal tar: Weighs specified amount of salicylic acid and dumps it onto conveyor leading to sublimation unit. Starts fans that circulate heated air in unit to promote vaporization of salicylic acid. Starts pump to draw salicylic-acid vapor through filters into condenser tanks where salicylic acid recrystallizes. Keeps daily production records.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

542.685-018 UNIT OPERATOR (chemical) alternate titles: plant-operator helper
Tends equipment in furnace-process plant that produces carbon black by partial combustion of crude oil, natural gas, or mixture of both: Starts individual units, such as reactors (furnaces), quenchers, precipitators, cyclones (grit collectors), pumps, compressors, and conveyors. Turns valves to regulate flow of water in quencher, feed rate of fuel and air, and movement of accumulated carbon black through equipment, as directed by PLANT OPERATOR, FURNACE PROCESS (chemical). Observes gauges and meters to verify specified temperature, pressure, and flow rates of materials. Opens inspection ports and observes flow of product through conveyors to detect jamming.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L1 SVP: 3 DLU: 77

543 DRYING, HEATING, AND MELTING OCCUPATIONS

This group includes occupations concerned with subjecting materials to heat in order to warm, melt, dry, char, purify, or concentrate them.

543.362-010 OIL BOILER (tex. prod., nec)
Controls kettles to boil oil to specified viscosity for use in making coated textile material: Pumps oil into kettle. Lights burner with torch and monitors burners and temperature gauges to ensure that specified oil temperature is maintained. Adds chemicals to facilitate drying when coating is applied to cloth, and stirs mixture, using paddle. Draws sample of oil and feels oil with fingers to estimate viscosity. Marks oil temperature and time of reading on chart for laboratory use. Pumps oil to and from kettle through water-cooled coils to maintain specified temperature and viscosity. Collects sample of oil for laboratory viscosity verification. Pumps oil to storage tank. Records amount of oil used and amount remaining in tanks.
GOE: 06.02.18 STRENGTH: H GED: R3 M3 L2 SVP: 5 DLU: 77

543.382-010 DRIER OPERATOR (utilities)
Operates battery of driers that remove moisture from coal to facilitate pulverization: Pulls chain to open gate and allow coal to enter drier. Opens dampers to admit hot gas and permit exit of cool gas. Adjusts dampers to regulate amount of gas applied to coal, observing thermometers to ensure adherence to drying specifications. Controls fan on draft line to regulate force of draft. Pulls chain to open gate at bottom of drier, upon completion of drying process, to transfer coal to pulverizer. Cleans drier by removing doors and prying or knocking off coal clinging to sides of drier on supply and exit lines.
GOE: 06.02.08 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

543.562-010 CARBON-FURNACE OPERATOR (smelt. & refin.)
Operates pit furnace to bake carbon-block anodes (electrodes) to remove volatile matter and increase electrical conductivity: Lights burner and adjusts fuel and water valves, manifold damper, and head covers to regulate temperature in furnace. Observes gauges and records water and fuel pressures. Measures flue and pit temperatures, using optical pyrometer. Inspects and maintains pumps, motors, fans, gas scrubber system, and pipelines. Signals CARBON-FURNACE-OPERATOR HELPER (smelt. & refin.) to prepare alternate pits for furnace changeover to maintain baking schedule.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

543.664-010 CARBON-FURNACE-OPERATOR HELPER (smelt. & refin.)
Assists CARBON-FURNACE OPERATOR (smelt. & refin.) in baking carbon anodes in pit furnaces: Disconnects water and fuel lines from equipment after baking cycle. Hooks cable to portable burner, blower, and exhaust manifold, and signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift equipment from fired pit and lower it into alternate pit. Replaces gas main covers, flue lids, and port plates on vacated pit. Cleans and installs cloth dustbags and vaporizer in headwall and burner respectively, and connects water and fuel hoses, using handtools. Fills expansion joints, flue cracks, gas connections, and pitholes with mortar or coke, using trowel and shovel. Dumps and spreads coke on pit, using overhead hoist and shovel. Regulates dampers and turns valves on fuel lines as directed. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 06.04.19 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

543.666-010 FURNACE WORKER (elec. equip.)
Loads green electrodes in gas or electric furnaces, packs them with insulating materials for firing, and cools and unloads them after processing, working as member of furnace crew: Dumps, levels, and tamps mixture of coke, sand, and sawdust on furnace bed. Attaches sling to individual electrodes, and signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 in positioning electrodes in furnace. Spreads coke over each layer of electrodes and tamps coke between electrodes to insulate them until specified number and layers of electrodes are loaded. Spreads insulating mixture uniformly over top of charge. Positions brick side blocks on side of furnace with aid of crane operator. Signals crane operator in hoisting *bus bars* into place on electric furnace, and bolts bars to feeders and to furnace terminals. Removes bus bars and side blocks after processing (graphitizing or baking) and pokes hole in insulating mix to observe color of electrodes. Refills and tamps insulating mix in hole to prevent oxidation if charge is cooking too rapidly; or rakes, hoes, or shovels insulating mix from charge and quenches charge with water to speed cooling. Shovels mixture into pile for reprocessing. Attaches sling to processed electrodes and signals crane operator to remove them from furnace. Cleans residue from electrodes, using airhose. May be designated according to duty performed as Furnace Cooler (elec. equip.); Furnace Loader (elec. equip.); Furnace Packer (elec. equip.); Furnace Unloader (elec. equip.).
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

543.682-010 COKE BURNER (steel & rel.)
Controls beehive coke ovens in which coal is carbonized to produce coke of specified quality: Turns valves to maintain specified temperature in oven and control rate of formation of coke. Measures temperature of melting coal in each oven with optical pyrometer. Determines when coke is ready for drawing, according to color and length of flame in oven.
GOE: 06.02.17 STRENGTH: M GED: R3 M3 L2 SVP: 5 DLU: 77

543.682-014 DRIER OPERATOR (mine & quarry) alternate titles: coal-drier operator; furnace operator; kiln operator
Controls one or more furnaces or kilns and auxiliary drying equipment to dry coal or ore before or after washing, milling, or pelletizing: Fires furnace or kiln, observes gauges, and adjusts controls to maintain specified temperature. Starts conveyor that feeds materials into drying equipment. Observes operation to detect plugging of equipment, and dislodges material, using crowbar. Observes color of materials to determine moisture content, and adjusts temperature or drying time. Cleans and repairs equipment. May shovel in additives. May weigh and compare samples. May keep production records.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

543.682-018 FURNACE OPERATOR (elec. equip.)
Controls continuous-feed gas, oil, or electric ovens to harden coated electric welding rods: Turns controls to light burners, open steam valves, and start blowers and conveyor lines. Dumps ink into pot and turns positioning screws on ink rolls to mark rods. Observes gauges and adjusts controls to maintain specified conveyor speed and heat and humidity in each baking zone. Observes coated welding rod to detect tool wear or coating flaws and reports findings to supervisor.
GOE: 06.04.10 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

543.682-022 PARAFFIN-PLANT-SWEATER OPERATOR (petrol. refin.) alternate titles: sweater operator
Operates sweater tank to separate liquid from slack wax (processed paraffin distillate): Pumps charge of slack wax into sweater tank. Opens valves to circulate cold water through sweater to cool slack wax. Opens and closes steam valves and reads temperature gauges to sweat (heat) cooled wax at specified temperature levels for specified periods. Turns valves to divert cuts (waxes of different boiling points and specific gravities) to storage tank after completion of each run. Takes samples and observes melting point of each cut at regular intervals. Opens valves to admit steam into sweater tank to melt wax residue when run is completed. Drains melted wax residue from sweater into storage tank.
GOE: 06.02.12 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

543.682-026 STILL OPERATOR (build. mat., nec)
Controls equipment that heats asphalt to specified temperature and viscosity for use in manufacture of roofing materials: Starts pumps that fill tanks with asphalt, and turns wheels and valves to regulate temperature and steam pressure. Actuates air compressor to force air bubbles through liquid asphalt, creating chemical reaction that raises asphalt melting point. Observes and adjusts dials and gauges to maintain specified temperature, pressure, and depth of asphalt in tanks. Starts discharge pumps, and turns valves to direct flow of heated asphalt into plant and storage tanks.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

543.684-010 QUALITY-CONTROL TESTER (fabrication, nec)
Tests charcoal briquettes at end of processing to verify conformance to specifications: Removes bag of briquettes from packaging line periodically and carries briquettes to testing laboratory. Grinds specified quantity of briquettes, using hand grinder, places grounds into moisture-testing equipment, and observes moisture meter to determine moisture content of sample. Saturates stacked briquettes with fire-starter fluid, ignites briquettes, and observes burning characteristics of briquettes and time required for white ash to form over briquette surfaces. Places prescribed number of briquettes in burner pot, ignites briquettes, and observes heat sensor dial to determine temperature released by burning briquettes. Weighs briquettes. Records test results on test report forms.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 86

543.685-010 BULLET-LUBRICANT MIXER (ordnance)
Tends steam-heated kettle that melts wax and other ingredients to make compound for lubricating lead bullets: Weighs specified amounts of ingredients and loads them into kettle. Turns valve to regulate heat and stirs mixture with wooden paddle. Drains melted compound from kettle into molds. Empties cooled molds and stores cakes in bins. Conveys compound to production departments to fill requisitions, using handtruck.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

543.685-014 DRIER TENDER (fabrication, nec) alternate titles: drier attendant
Tends drying equipment that removes moisture from fuel briquettes to harden them after shaping: Turns steam valves and observes gauges to regulate temperature and humidity in drying chamber. Presses button to start hot-air blowers to dehydrate briquettes. Turns handwheel to control speed and amount of material passing through drying chamber. Examines and feels samples to determine if briquettes meet hardness standards. Observes dial on moisture-checking machine to verify dryness.
GOE: 06.04.12 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

543.685-018 OVEN TENDER (elec. equip.)
Tends gas or electric furnaces that bake carbon rods, such as those used for commutator brushes, resistors, and switches, to harden them: Inserts carbon rods into ceramic containers and loads containers into furnaces. Regulates furnace temperature by turning gas valves or electric controls according to specifications. Shuts off heat after specified time. Unloads furnace after cooling.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

543.685-022 THAW-SHED HEATER TENDER (steel & rel.)
Tends heating units that thaw frozen materials, such as coal and coke, in railroad cars: Pushes buttons to start fuel-feed pumps, heater, and exhaust and air-volume fans. Lights oil burner, and opens valve of fuel line to heating unit in shed where cars are placed. Lubricates and adjusts equipment, such as pump and fan bearings. Cleans working area and equipment with airhose.
GOE: 06.04.12 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 77

543.687-010 COKE DRAWER, HAND (steel & rel.)
Performs any combination of following duties involved in emptying coke oven: Scrapes coke from coke oven, using iron rod (scraper). Forks coke onto conveyor that dumps coke in railroad cars. Picks foreign matter, such as slate and slag, from coke on conveyor. May fork coke into wheelbarrow and push wheelbarrow to railroad cars. May apply brakes or place car-stop to hold railroad cars under coke-pushing machine. May place firebrick doors in oven doorframe, using overhead hoist, to close oven. May seal doors of ovens, using firebricks and loam.
GOE: 05.12.03 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

543.687-014 OVEN DAUBER (steel & rel.) alternate titles: dauber; luter; paster
Performs any combination of following tasks involved in sealing coke-oven doors with lute (mud made from clay, coke dust or ashes, and water) to prevent escape of gases during baking of coal: Shovels mud into mud carrier and transfers mud pails to ovens. Chips old clay, carbon, and residue from doorway of oven, using chisel bar. Seals crack around oven door with mud, using trowel and tamping bar. Shovels dry clay into dry-clay box on pusher or into wheelbarrow. Shovels excess mud, oven spillage, and coal from working area. Opens and closes chuckhole door, using handwheel and lever. May open oven, using bar, and manually position coke guide in doorway. May signal LARRY OPERATOR (steel & rel.) to charge oven. May push buttons to move electric mud car.
GOE: 06.04.30 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

544 GRINDING AND CRUSHING OCCUPATIONS

This group includes occupations concerned with reducing materials to smaller particles, such as granules, grits, powder, or paste, by means of compression, smashing, cutting, or a combination of these.

544.565-010 GRINDER, CARBON PLANT (smelt. & refin.)
Tends machine that grinds and blends coke according to specifications: Sets mill gauge to specified fineness of grind. Starts conveyors and screening and grinding equipment. Moves gate levers to regulate flow of raw coke into machine, and processed coke to mixer or packing-material hopper. Turns valve to regulate moisture content of material. Opens gauge valves to fill buckets under hopper spouts, attaches crane cable to buckets, and signals RIGGER (any industry) to remove them. Weighs materials at specified intervals, using platform scales, and records data. Observes operation to ensure continuity of flow and to detect malfunctioning. May tend machine that mixes materials for electrodes [MIXER OPERATOR, CARBON PASTE (elec. equip.; smelt. & refin.)].
GOE: 06.04.12 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

544.582-010 CRUSHER-AND-BLENDER OPERATOR (steel & rel.) alternate titles: pulverizer operator
Operates machines and equipment to crush and blend coal of various compositions to obtain specified mixture used in producing coke: Turns valve to

admit oil to mixer. Starts hammer mill, mixer, and conveyor equipped with harrow disks. Moves lever to adjust blade on feed tables to deliver coal to mixer. Observes operation of machines to detect malfunctioning, clogging, and unevenness of flow. Frees clogged coal by striking side of hopper with mallet. Adjusts or replaces screens and hammers in mill, using handtools. Observes meters, gauges, and thermometer, and records temperature, oil consumption, tonnage mixed, and operating time. Cleans work areas, using broom. May open valves and start pumps to unload oil trucks. May test pulverized coal for conformance to specifications. May crush specific composition of coal (without blending) and be designated Coal-Pulverizer Operator (any industry).
GOE: 06.02.08 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

544.585-010 MIX-CRUSHER OPERATOR (elec. equip.)

Tends mechanical crusher to crush and screen, for reuse, insulating mixture from electrical furnaces in which carbon is graphitized: Breaks mixture to size with pick. Shovels mixture into hopper of crusher. Starts crusher and conveyor belts that carry crushed and screened mixture to storage bins. Marks bins as to types of mixture stored. Adjusts and cleans conveyors and screen vibrators.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

544.662-010 COKE-CRUSHER OPERATOR (steel & rel.)

Operates crushers, conveyors, and screens to produce crushed coke of various sizes: Moves levers and buttons to activate equipment. Pushes belt conveyor into position to load or unload hoppers, railroad gondolas, and trucks. Pushes buttons to adjust stops on conveyor to deflect and regulate flow of coke into crusher, screens, or storage bins. Observes operation of equipment to detect malfunctions and prevent clogging. Notifies supervisor of needed repairs. Shovels coke back onto conveyor belt.
GOE: 06.02.08 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

544.665-010 MILL-AND-COAL-TRANSPORT OPERATOR (utilities) alternate titles: coal-transport-and-mill operator; mill operator

Tends equipment that pulverizes coal and conveys it to storage bins or boiler feed hoppers: Signals DRIER OPERATOR (utilities) to send dried coal to mill, and closes switch to set mill in operation. Moves levers to adjust automatic mechanism that controls feed rate of coal into pulverizing mill. Tends conveyors or pneumatic bulk-conveyor system to move pulverized coal to storage bins or boiler feed hoppers. Cleans, oils, and makes minor adjustments to machinery.
GOE: 06.04.08 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

544.685-010 BREAKER TENDER (steel & rel.)

Tends machine that breaks coal into lumps of specified size preparatory to pulverizing: Starts steel drum containing coal revolving to tumble, break, and pass coal through perforations in drum. Starts conveyors to transfer coal to and from breaker machine. Observes flow of material on conveyor to detect and remove foreign material and clear jams. Removes metal from pocket of magnetic separator. Lubricates breaker machine with grease gun and oilcan. Cleans work area, using shovel and broom. May assist with repair work.
GOE: 06.04.12 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

546 REACTING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with changing the chemical composition of petroleum, coal, natural and manufactured gas, and related products.

546.382-010 CONTROL-PANEL OPERATOR (petrol. refin.) alternate titles: operator, control room

Operates control panel to regulate temperature, pressure, rate of flow, and tank level in petroleum refining, processing, and treating units and petro-chemical units, according to process schedules: Observes instruments and meters to verify specified conditions and records readings. Moves and adjusts dials, switches, valves, and levers on control panel to regulate and coordinate process variables, such as flows, temperatures, pressures, vacuum, time, catalyst, and chemicals as specified. Reports malfunctioning equipment to REFINERY OPERATOR (petrol. refin.). Records results of laboratory analyses. May test products for chemical characteristics and color, or send them to laboratory for analysis. May change recording charts and ink pens [CHART CHANGER (clerical)]. May operate auxiliary equipment to assist in distilling or treating operations. May lubricate equipment. May be designated according to type of unit or process as Control-Panel Operator, Cracking Unit (petrol. refin.); Control-Panel Operator, Crude Unit (petrol. refin.); Control-Panel Operator, Polymerization Unit (petrol. refin.); Control Panel Operator, Solvent-Treating Unit (petrol. refin.).
GOE: 06.02.12 STRENGTH: L GED: R3 M3 L2 SVP: 7 DLU: 77

546.385-010 GAS TREATER (any industry)

Tends automatically controlled treating plant, consisting of *absorption towers*, actifiers, heat exchangers, pumps, and other auxiliary devices, that removes unwanted components and renders gas suitable for use as fuel: Observes gauges and meters to ascertain operating conditions and adjusts valves and controls accordingly. Performs chemical tests on treating materials. Adds chemicals to treating system as required. Observes safety precautions to prevent fires and explosions.
GOE: 06.02.12 STRENGTH: L GED: R3 M3 L2 SVP: 4 DLU: 77

549 OCCUPATIONS IN PROCESSING OF PETROLEUM, COAL, NATURAL AND MANUFACTURED GAS, AND RELATED PRODUCTS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with preparing for commercial use the products of oil shales, oil and gas wells, and coal mines.

549.130-010 SUPERVISOR, TOWER (petrol. refin.)

Supervises and coordinates activities of workers engaged in operation of stills and related units, such as absorbers, debutanizers, catalyst hoppers, reboilers, heat and vapor exchangers, desalters, clay towers, stabilizers, furnaces, strippers, and desulfurizers, in which crude oil and resultant distillates are processed to separate and recover various petroleum products: Confers with laboratory personnel to plan production schedules and to determine temperatures, pressures, rates of flow, and tank levels required for control of process. Directs refining operations in assigned units through REFINERY OPERATOR (petrol. refin.). Reviews recording-instrument and flowmeter charts, logsheets, and laboratory analysis reports to verify control of process. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

549.131-010 SUPERVISOR, NATURAL-GAS-FIELD PROCESSING (petrol. & gas; pipe lines)

Supervises and coordinates activities of workers engaged in sampling and testing natural gas, and controlling processing equipment at oil field installations: Directs workers in inspection of storage tanks, regulators, traps, and dehydration plants. Orders sample taking and field testing to determine specific gravity, vapor and hydrocarbon content, and other properties of gas and to verify suitability of boiler water used in gas processing equipment. Confers with workers to resolve operational problems. Revises field maps to show locations of gas processing and control equipment. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

549.132-010 GREASE MAKER, HEAD (petrol. refin.) alternate titles: supervisor, grease making

Supervises and coordinates activities of GREASE MAKERS (petrol. refin.) engaged in producing various grades of lubricating grease, performing duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M4 L4 SVP: 8 DLU: 77

549.132-014 SUPERVISOR III (fabrication, nec)

Supervises and coordinates activities of workers engaged in drying, pulverizing, mixing, and pressing ingredients used to produce fuel briquettes: Feels fuel mixture to estimate moisture content. Observes reading on hygrometer to determine humidity of atmosphere, and specified temperature for drier and flow rate of material. Inspects finished product and takes sample for pressure test. Specifies changes in percentage of binder to bring product to specified quality level. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

549.132-018 SUPERVISOR, COAL HANDLING (steel & rel.)

Supervises and coordinates activities of workers engaged in unloading, stacking, reclaiming, crushing, and blending coal and delivering coal to ovens. Trains workers in operation of equipment. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

549.132-022 SUPERVISOR, COKE HANDLING (steel & rel.)

Supervises and coordinates activities of workers engaged in quenching, conveying, sizing, inspecting, storing, and loading coke, and repairing machinery and equipment. Trains workers in operation of equipment. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

549.132-026 SUPERVISOR, PASTE PLANT (steel & rel.)

Supervises and coordinates activities of workers engaged in grinding, mixing, and baking coke and pitch to produce carbon anodes: Reviews production schedules and confers with supervisory staff to plan shift operation of paste plant and bakeshop. Assigns duties to workers according to production schedules and demonstrates safe and efficient use of equipment. Inspects machinery and equipment to verify conformance to production standards. Prepares time, attendance, and production reports. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

549.132-030 SUPERVISOR, PURIFICATION (petrol. refin.) alternate titles: chief operator, hydroformer; chief operator; extraction supervisor; fractionation operator, head; fractionation supervisor

Supervises and coordinates activities of workers engaged in operating superfractionation towers, absorbers, stabiliziers, rerun towers, naphtha-

desulfurizing units, caustic-wash units, separators, catalytic reactors, furnaces, stripper towers, and auxiliary equipment, such as pumps, engines, and compressors to separate light naphtha blends from crude naphtha, compound hydroformates from light naphtha, and extract products, such as benzene, toluene, and xylene from hydroformates: Coordinates operation of various units in system, according to run sheets, test books, order books, logbooks, gauge sheets, and pumping reports. Observes recording-instrument charts, flowmeters, and gauges to verify specified temperatures, pressures, flow rates, and liquid levels. Correlates instrument readings and test results to diagnose process malfunctions. Inspects equipment and cathodic-protection system to detect defects and malfunctions, such as excessive wear, overheating, and leaks. Directs workers in spraying catalyst beds with steam to regenerate catalyst. Trains workers in procedures for correcting malfunctions in equipment. Prepares bills of lading and manifests, inspects tank cars and tank trucks for cleanliness, and directs loading of cars and trucks to ship product. May be designated according to product as Supervisor, Benzene-Refining (petrol. refin.). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

549.132-034 SUPERVISOR, TREATING AND PUMPING (petrol. refin.) alternate titles: treating and pumping supervisor
Supervises and coordinates activities of workers engaged in treating petroleum products with chemicals, steam, water, or air to remove sulfur and other impurities, in blending products to specification, and in pumping products to storage tanks, loading racks, and other processing units: Inspects treating and pumping units to verify specified temperatures and pressures. Reads logsheets, gauging records, and laboratory test reports to verify conformity of product to production schedules and specifications. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

549.137-010 SUPERVISOR, CARBON ELECTRODES (steel & rel.)
Supervises and coordinates activities of workers engaged in extruding, baking, graphitizing, and preparing graphite electrodes for shipment: Gives instructions to workers concerning formulas and amounts of materials to use, and type and size of electrodes to extrude, bake, graphitize, or prepare for shipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to department as Supervisor, Baking (steel & rel.); Supervisor, Extrusion (steel & rel.); Supervisor, Graphite (steel & rel.).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 6 DLU: 77

549.137-014 SUPERVISOR, PREPARATION PLANT (mine & quarry) alternate titles: breaker boss; tipple supervisor; washery boss
Supervises and coordinates activities of workers engaged in crushing, sizing, cleaning, treating, or loading coal, stone, or other minerals at tipple or preparation plant: Receives daily reports of quantity and grade of materials to be loaded into railroad cars or trucks. Transmits loading orders to equipment operators and loading crew. Observes activities of workers to ensure that impurities and materials of unspecified size are extracted. Directs operation of crushers, pumps, and furnaces, and assists workers with faulty equipment. Inspects processing and loading equipment and schedules necessary maintenance. Computes daily production from weight of loaded cars or trucks. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

549.137-018 SUPERVISOR, SPECIALTY PLANT (petrol. refin.) alternate titles: loading supervisor
Supervises and coordinates activities of workers engaged in blending, compounding, packing, loading, and shipping special petroleum products, such as asphalt paints, paint primer, mastics, and lighter fluid: Confers with department heads to coordinate work of department with sales, billing, and other refinery activities. Plans blending schedules to maintain stock of standard products and computes blends from standard formulas. Writes shipping orders for loading tank cars and trucks. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M4 L4 SVP: 7 DLU: 77

549.260-010 REFINERY OPERATOR (petrol. refin.)
Analyzes specifications and controls continuous operation of petroleum refining and processing units to produce products, such as gasoline, kerosene, and fuel and lubricating oils, by such methods as distillation, absorption, extraction, adsorption, thermal and catalytic cracking and reforming, polymerization, isomerization, coking, visbreaking, and alkylation: Reads processing schedules, operating logs, test results of oil samples, and laboratory recommendations to determine changes in equipment controls required to produce specified quantity and quality of product. Moves and sets controls, such as knobs, valves, switches, levers, and index arms, on control panels to control process variables, such as flows, temperatures, pressures, vacuum, time, catalyst, and chemicals, by automatic regulation and remote control of processing units, such as heaters, furnaces, compressors, exchangers, reactors, quenchers, stabilizers, fractionators, rechargers, absorbers, strippers, debutanizers, stills, and towers [CONTROL-PANEL OPERATOR (petrol. refin.)]. Moves controls to regulate valves, pumps, compressors, and auxiliary equipment to direct flow of product. Reads temperature and pressure gauges and flowmeters, records readings, and compiles operating records. Determines malfunctioning units by observing control instruments, such as meters and gauges, or by automatic warning signals, such as lights and sounding of horns. Inspects equipment to determine location and nature of malfunction, such as leaks, breakages, and faulty valves. Determines need for schedules and performs repair and maintenance of equipment. Patrols unit to verify safe and efficient operating conditions. May sample liquids and gases [SAMPLER (petrol. refin.)] and test products for chemical characteristics and color [TESTER (petrol. refin.)]. May inspect and adjust furnaces, heaters, and damper controls. May lubricate equipment. May clean interior of processing units by circulating chemicals and solvents through them. May treat products [TREATER (petrol. refin.)]. May control activities of several processing units operated in conjunction. May be designated according to process involved or plant operated as Absorption Plant Operator (petrol. refin.); Purification Operator (petrol. refin.); Refinery Operator, Cracking Unit (petrol. refin.); Refinery Operator, Polymerization Plant (petrol. refin.); Refinery Operator, Reforming Unit (petrol. refin.); Refinery Operator, Visbreaking (petrol. refin.). May be designated: Refinery Operator, Alkylation (petrol. refin.); Refinery Operator, Coking (petrol. refin.); Refinery Operator, Crude Unit (petrol. refin.); Refinery Operator, Gas Plant (petrol. refin.); Refinery Operator, Light-Ends Recovery (petrol. refin.); Refinery Operator, Vapor Recovery Unit (petrol. refin.).
GOE: 06.01.03 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

549.261-010 MECHANICAL INSPECTOR (petrol. refin.) alternate titles: inspector
Inspects processing and storage tanks, pipelines and fittings, stills, towers, and pumping units for defects, following specified inspection procedures: Examines mechanical installations, instrumentation, valves, and fittings for defects, such as cracks, corrosion, and leaks. Measures thickness of tank walls, tower walls, and pipelines, using calipers and electronic instruments, to determine extent of corrosive damage. Drills test holes in tank and tower walls to take samples of corrosive deposits and verify extent of damage. Installs probes and other instruments in tanks and towers to obtain samples of corrosive deposits and to measure rate of corrosion. Computes rate of corrosion from laboratory analysis of probe samples, using mathematical tables and charts. Reports need for immediate repairs to mechanical department. Prepares inspection reports to indicate nature of repairs and replacements required and to specify safe limits of temperature and pressure to follow pending repair of unit. Inspects construction and installation of new mechanical equipment for conformity to specifications. May inspect operating condition of firefighting equipment. May be designated according to equipment inspected as Still And Tank Inspector (petrol. refin.).
GOE: 05.07.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

549.360-010 PUMPER (petrol. refin.)
Controls pumps and manifold systems to circulate crude, semiprocessed, and finished petroleum products, water, and chemical solutions through processing, storage, and shipping departments of refinery, according to schedules: Reads operating schedules or instructions from DISPATCHER, OIL (petrol. & gas; petrol. refin.; pipe lines). Plans movement of products through lines to processing, storage, and shipping units, utilizing knowledge of interconnections and capacities of pipelines, valve manifolds, pumps, and tankage. Synchronizes activities with other pumphouses to ensure continuous flow of products and minimum of contamination between products. Starts battery of pumps, observes pressure meters and flowmeters, and turns valves to regulate pumping speeds according to schedules. Turns handwheels to open line valves and direct flow of product. Signals STILL-PUMP OPERATOR (petrol. refin.); PUMPER HELPERS (petrol. refin.); and GAUGERS (petrol. & gas; petrol. refin.; pipe lines) by telephone or radio to operate pumps in designated units, to open and close pipeline and tank valves, and to gauge, sample, and determine temperature of tank contents. Records operating data, such as products and quantities pumped, stocks used, gauging results, and operating time. May blend oils and gasolines [BLENDER (petrol. refin.)]. May repair pumps, lines, and auxiliary equipment.
GOE: 06.02.12 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

549.362-010 STILL-PUMP OPERATOR (petrol. refin.) alternate titles: process pumper; pump operator
Operates steam- or electric-driven pumps to circulate crude, semiprocessed, and finished petroleum products, water, and chemical solutions through processing, storage, and shipping departments of refinery, according to work orders: Starts pumps in specified units, observes flowmeters and pressure meters, and turns valves and switches to change pumping rates, as directed by PUMPER (petrol. refin.). Turns handwheels to open or close tank and pipeline valves to direct flow of products to specified destinations. Observes operation of pumping equipment to detect malfunctioning and leakage. Lubricates cocks, valves, joints, and pumps, using oilcan and grease gun. Tightens bolts and screws to adjust and repair equipment, using handtools. Gauges contents of tank, using gauging tape. May record operating data, such as products and quantities pumped, stocks used, gauging results, and operating time. May remove sample from tank and test it for specific gravity and color. May repair and overhaul pumps [PUMP SERVICER (any industry)]. May blend oils or gasolines [BLENDER (petrol. refin.)]. May communicate with PUMPER (petrol. refin.) by radio or telephone to send and receive pumping and gauging information. May be designated according to specialty as Cooling-Tower Operator (petrol. refin.).
GOE: 06.02.12 STRENGTH: M GED: R3 M3 L2 SVP: 5 DLU: 77

549.362-014 TREATER (petrol. refin.) alternate titles: treating-plant operator
Controls continuous-treating or batch-treating equipment to process petroleum products, such as gasoline, kerosene, and lubricating oils, with chemicals, sol-
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vents, steam, clay, and hydrogen to remove impurities and to improve color, odor, and stability, according to specifications: Moves and sets levers, switches, dials, and handwheels to admit products and treating agents to processing units in specified ratio; to direct flow of products through treating stages, such as mixing, precipitating, and neutralizing; and to regulate temperatures, pressures, and circulation rates of treating equipment. Observes temperature gauges, pressure gauges, and flowmeters; records readings; and compiles operating records. Patrols unit to detect malfunctions and leaks. Opens bleeder valves to sample products and tests them for chemical characteristics, specific gravity, and color, or sends sample to laboratory for analysis. Reprocesses products or pumps them to storage tanks, according to test results and laboratory recommendations. Opens valves to drain sludge from units. May repair and lubricate equipment. May treat products, using hydrogen-catalytic process. May operate refrigerating equipment [REFRIGERATING ENGINEER (any industry)]. May add dyes or fortifying chemicals to product [BLENDER (petrol. refin.)]. May be designated according to product treated as Crude-Oil Treater (petrol. refin.); Wax Treater (petrol. refin.); treating agent used as Acid Treater (petrol. refin.); Hydrogen Treater (petrol. refin.); plant operated as Clay-Plant Treater (petrol. refin.); Naphtha-Plant Treater (petrol. refin.); Solvent-Plant Treater (petrol. refin.); or type of operation as Batch-Unit Treater (petrol. refin.).
GOE: 06.02.12 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

549.364-010 TESTER, COMPRESSED GASES (chemical) alternate titles: compressed-gas tester; gas tester

Tests compressed gases for moisture content, purity, ratio of gases in mixture, and cylinder pressure, using standard testing equipment and following specified procedures: Drains gas samples from tanks, or rolls cylinders to test station. Adjusts test equipment, such as volumetric moisture tester, burette, conductometer, and pressure gauges, according to type or mixture of gases as shown on chart. Records test procedures and results in log. Prepares and places identifying tags on cylinders or tanks. Notifies supervisor of deviations from specifications. May test accuracy of calibrations on pressure gauges, using dead-weight tester. May mix gases according to customer specifications. May vaporize liquid gases and fill tube trailers. May measure percentage of carbon monoxide in truck cabs, using automatic gas-metering device or by spraying chemical from syringe into atmosphere and matching degree of discoloration against color chart.
GOE: 06.03.01 STRENGTH: M GED: R3 M3 L2 SVP: 3 DLU: 77

549.367-010 INSPECTOR (build. mat., nec)

Tests samples of composition shingles and rolls of coated roofing felt for conformance to specifications: Weighs bundles of shingles and rolls of roofing felt to verify gross weight with label weight, and records data on production report. Examines surface of shingles for uniformity of color, and feels slate to determine that slate is evenly distributed. Cuts strips from shingles, using knife, and actuates scratch tester to determine if slate is embedded to specifications. Calculates percentage of slate loss after scratch test, using balance scales, and notifies COATER, SLATE (build. mat., nec) of results. Measures shingles as they pass on conveyor, using tape rule. May test material samples for porosity, time required for saturation, and light-relfective characteristics, using specified test equipment.
GOE: 06.03.01 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

549.382-010 NATURAL-GAS-TREATING-UNIT OPERATOR (petrol. & gas)

Operates automatically controlled natural-gas treating unit in oil field to render gas suitable for fuel and for pipeline transportation: Opens valves to admit gas and specified chemicals into treating vessel where moisture is absorbed and impurities removed. Adjusts controls of auxiliary equipment, such as pumps, heating coils, and cooling tower. Reads temperature and pressure gauges, and adjusts controls to keep heat and pressure at level of maximum efficiency within safe operating limits. Performs routine tests or delivers samples to laboratory to determine qualities of gas, such as Btu value, flame candlepower, and specific gravity, and proportions of elements, such as methane, propane, and natural gasoline. Drains samples of boiler water from treating unit for laboratory analysis. Adds specified chemicals to water to keep heating and cooling systems in working order. May adjust and repair gas meters and governors, using handtools [METER REPAIRER (any industry)]. May change charts on meters equipped with automatic recorders. May advise and assist workers repairing gas meters, regulators (governors), and other control instruments.
GOE: 06.02.12 STRENGTH: L GED: R3 M3 L2 SVP: 6 DLU: 77

549.382-014 OIL-RECOVERY-UNIT OPERATOR (petrol. refin.)

Controls processing equipment to separate recoverable oil from refinery sewage system: Starts pumps, observes flowmeters and pressure meters, and turns valves to regulate directional flow of oil, water, solids, chemicals, and air, according to operating procedures. Turns handwheels to control skimming devices that collect *sprung oil* from reservoirs of separation units. Opens valves on steam heat-exchanger to raise temperature of skimmed oil to treating temperature. Mixes and blends caustic cleansing and demulsifying chemicals into oil to remove impurities and water. Turns valves to pump reclaimed oil to storage tanks, solids to disposal unit, and water to oxidation ponds or to separator unit for recycling. Records amount of oil reclaimed, amount of water or impurities removed, and specified data concerning operating condition of processing equipment.
GOE: 06.02.12 STRENGTH: H GED: R3 M3 L2 SVP: 3 DLU: 77

549.382-018 WASH-OIL-PUMP OPERATOR (steel & rel.) alternate titles: light-oil operator; wash-oil-cooler operator

Operates variety of pumps and auxiliary equipment, following standard procedures to extract light oil (crude benzol) from coke-oven gas: Turns valves and starts pumps to admit gas and wash oil to still and steam to heating coil. Reads gauges and thermometers and regulates pumps to control temperature, pressure, and rate of flow of materials. Pumps washed gas to processing station or storage. Admits steam to coil to separate light oil from wash oil. Pumps light oil to benzol plant or storage and wash oil through heat exchangers and coolers for reuse in system. Drains water and sludge from tanks. Cleans gaugelines, gauge glasses, and decanters. Records oil and water temperatures, and quantity of light oil extracted.
GOE: 06.02.17 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

549.387-010 CARGO INSPECTOR (petrol. refin.; pipe lines)

Inspects crude and refined petroleum before and after transfer from terminal tanks to ship tanks, to determine if it meets prescribed standards. Lowers sample container into ship tanks to obtain sample of oil residue and into terminal tanks to sample oil, or opens bleeder valves on pipelines to obtain sample. Determines amount and type of bottom sediment, water, and foreign substance present in oil sample, using centrifugal tester and following standard formulas. Lowers thermometer into tanks to obtain temperature reading, and determines quantity of oil in ship tanks, using calibrated tape and conversion tables. Records test results. Turns valves to close tanks, inspects valves for leaks, and clamps seal around valves to secure tank contents. Prepares, verifies, and examines cargo ladings, oil transportation records, and export records. May direct BOAT LOADER (water trans.) I in taking samples and assist in loading and unloading oil. May lubricate and adjust valves, using grease gun, oilcan, and handtools.
GOE: 05.07.05 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

549.585-010 ACETYLENE-PLANT OPERATOR (chemical)

Tends generating equipment that processes calcium-carbide crystals and water into acetylene gas: Turns valves, level gauge, and thermostat to raise and heat water to prescribed level and temperature in generator. Dumps specified quantity of calcium-carbide crystals into hopper, bolts in cover, and starts generator. Opens hopper gate and starts vibrator that sifts crystals into generator. Records amount of time consumed during operation and cylinder shipping data. May tend compressor. May ascertain level of acidity or alkalinity of gas with litmus paper, and test filled cylinders for leaks by brushing on chemical solution. May fill cylinders with compressed gas [CYLINDER FILLER (chemical)].
GOE: 06.04.11 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

549.587-010 COMPRESSED-GAS-PLANT WORKER (chemical)

Performs any combination of following tasks in establishment making compressed and liquefied gas: Loads cylinders or ton containers on vehicles, using handtruck or chain hoist, and records type and quantity of cylinders. Examines returned cylinders for surface defects, such as dents, cracks, and burns, and rolls cylinders to designated work area. Removes valves and installs reconditioned valves on cylinders, using wrenches. Connects exhaust manifold to cylinders and turns valve to draw off residual gas. Bounces or hammers cylinders to loosen rust and scale, and inserts water, steam, and air nozzles and turns valves to clean and dry cylinders. Tests filled cylinders for leaks by brushing or spraying chemical solution around valve. Weighs filled cylinders on platform scale and records weight. Screws protection cap over valve and ties warning and identification tags on cylinder. Wraps cakes of dry ice in paper and stores them in icehouse. May clean cylinder exteriors with wire brush. May place cylinders on heating rack to expand gas to ensure complete removal. May be known according to work performed as Blow-Off Worker (chemical); Cylinder Handler (chemical); Cylinder Valver (chemical); Hoist-Cylinder Loader (chemical); Ice Handler (chemical); Valve Steamer (chemical). May be designated. Cylinder Checker (chemical); Cylinder Devalver (chemical); Cylinder Steamer (chemical); Ton-Container Shipper (chemical).
GOE: 06.04.40 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

549.587-014 SAMPLER (petrol. refin.) alternate titles: laboratory sampler

Collects samples of petroleum products from various parts of refinery for laboratory analysis, using sample container: Samples contents of tank cars, processing units, stills, and pipelines by lowering sample container into contents at various depths, or by opening bleeder valves to release flow of products into container. Collects samples taken by other workers. Pours samples from containers into sample bottles and ties identification tags to bottles or marks identifying information on them. Delivers samples to laboratory for analysis. May convey messages between laboratory and processing units. May collect samples of other materials for laboratory analysis.
GOE: 06.04.40 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

549.587-018 SAMPLER (elec. equip.)

Digs, weighs, and prepares ground samples of coal and pitch, used in making carbon electrodes, for laboratory testing: Digs sample from designated area, using shovel or sampling stick. Places samples into containers and labels or writes identifying information on containers. Weighs, crushes, screens, and reweighs materials in laboratory to prepare sample for testing. Records information pertaining to size distribution of respective materials.
GOE: 05.12.07 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

549.662-010 BRIQUETTE-MACHINE OPERATOR (fabrication, nec) alternate titles: briquette molder; molding-machine operator

Operates machines and equipment to dehydrate, pulverize, mix, and mold ingredients to produce fuel briquettes: Shovels or empties sacks of materials into

hoppers or bins, or starts elevator-conveyors. Turns valves, handwheels, or rheostats to move and control flow of fuels, water, and dry or liquid binders to machines. Starts conveyors, rotary drier, mixers, pulverizer, mixing augers, and compressing machines. Inspects briquettes and adjusts flow of materials to produce briquettes of specified dimensions. Removes and replaces broken bolts and worn shafts, using handtools. Lubricates machinery or directs oiling of equipment. May be designated according to type of briquette produced as Barbecue-Briquette-Machine Operator (fabrication, nec); Charcoal-Briquette-Machine Operator (fabrication, nec); Coal-Briquette-Machine Operator (fabrication, nec).
GOE: 06.02.17 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

549.665-010 ACETYLENE-CYLINDER-PACKING MIXER (chemical)
Tends mixing machine, autoclave, and drier to mix, pack, solidify, and dry asbestos, dirt, charcoal, lime, water, and other ingredients to form absorbent packing for compressed acetylene gas: Meters out water and powdered ingredients, and dumps them into mixer. Starts agitator to mix ingredients for specified period of time. Opens chute to transfer mixture to vibrator. Clamps cylinders to vibrator, and connects funnels and packing rods to cylinders. Starts vibrator and rods that sift and pack mixture into cylinders. Weighs cylinders to ascertain amount of mixture packed. Rolls cylinders into autoclave, and turns valve to specified pressure level to solidify packing. Rolls cylinders into drier, and turns thermostat to heat cylinders. Installs valves and safety plugs on cylinders, and places them on scale. Connects acetone feedlines to cylinders, using handtools, and turns valves to fill cylinders with acetone, according to specifications.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

549.682-010 GREASE MAKER (petrol. refin.)
Controls gas- or steam-heated kettles to produce various grades of lubricating grease: Pours specified quantities of ingredients, such as melted fats, mineral oils, and soda or lime base, into kettle, and starts agitator to stir mixture to required consistency. Adjusts kettle temperature controls to form basic soap from mixture. Turns off heat and adds water, dye, and various mineral oils to soap in designated proportions for emulsification. Stirs and reheats mixture to produce grease of required texture.
GOE: 06.04.12 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

549.684-010 PUMPER HELPER (petrol. refin.)
Assists STILL-PUMP OPERATOR (petrol. refin.) and PUMPER (petrol. refin.) in pumping crude, semiprocessed, and finished petroleum products, water, and chemical solutions through processing, storage, and shipping departments of refinery: Turns valves and switches to start and regulate operation of pumping units. Turns handwheels to open and close pipeline and tankage valves to direct flow of product to destination. Inspects pumps, lines, and tankage valves for leaks and malfunctioning. Lubricates valves and pumps. Tightens connections, using wrenches. Gauges contents of tanks, using tape gauge or automatic remote-controlled gauging equipment. Takes temperature readings by lowering thermometer into tank. Draws samples of product by lowering sample container into tank or by opening bleeder valves on pipelines to draw sample. Loads barges and tank cars. May make specific gravity and color tests. May clean equipment. May use radio or telephone to communicate with PUMPER (petrol. refin.). May blend and dye gasolines, using standardized formulas, and prepare blending report. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.12 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

549.685-010 AIR-TABLE OPERATOR (mine & quarry)
Tends pneumatic coal-cleaning table that blows coal dust, sulfur, and other impurities from coal as it passes through preparation plant: Starts machine and adjusts valve to regulate air pressure. Observes coal as it passes over cleaning table and removes oversized lumps, rocks, or foreign matter. Adjusts and lubricates mechanical parts of machine, using handtools, grease gun, and oilcan.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

549.685-014 GRAPHITE PAN-DRIER TENDER (nonmet. min.)
Tends vacuum-filter dewaterer and gas-fired pan-drier to prepare flake graphite from mill slurry: Starts pumps, filter, and drag mechanism on pan-drier. Lights gas burners on drier with torch and turns valves to regulate temperature as judged by color of flame. Turns valves to admit graphite slurry into dewaterer which extracts water (by means of vacuum exerted through rotating filter paddles) and discharges damp graphite onto pan of drier. Judges degree of dryness of graphite as drag mechanism moves it along length of drier pan. Adjusts drying rate by regulating input rate of graphite slurry into dewaterer. Removes filter paddles and replaces filter cloths (socks), using mechanic's handtools.
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L1 SVP: 4 DLU: 77

549.685-018 MOLDER, WAX (petrol. refin.)
Tends equipment that molds wax recovered from processed petroleum into cakes: Turns valves to fill molds with hot wax. Moves controls to circulate chilling fluid through molds, solidifying wax. Removes wax cakes from molds.
GOE: 06.04.12 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 77

549.685-022 REELER (build. mat., nec) alternate titles: roll winder; winder operator
Tends machine that winds asphalt-coated roofing felt into rolls of specified length and width: Threads felt through feed rollers and inserts end in takeup reel. Starts machine that automatically weighs and ejects completed roll after specified weight has been wound. Depresses pedal to activate knife that severs roll from continuous feed after specified weight has been attained. May change gears to vary size and weight of rolls, using handtools.
GOE: 06.04.09 STRENGTH: H GED: R2 M2 L1 SVP: 3 DLU: 77

549.685-026 SCREENER-AND-BLENDER OPERATOR (steel & rel.) alternate titles: graphite-mill operator
Tends screening and blending machine that removes rocks and twigs from coarse coke and mixes it with fine-ground coke to produce blended mix used to pack carbon electrodes in graphite furnaces: Shovels or dumps coarse coke onto vibrating screens. Starts screens that separate rocks, twigs, and other materials from coke. Starts conveyors that carry sifted coke from screening area and fine-ground coke from storage bins to top of blending tanks and dumps them into tanks. Starts blender blades that mix coke. Turns valves to release blended mix from blending tanks into storage tanks for removal to graphite furnaces.
GOE: 06.04.12 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

549.685-030 TREATER HELPER (petrol. refin.)
Assists TREATER (petrol. refin.) in processing petroleum products, such as gasoline, kerosene, oils, and wax, with chemicals, steam, water, or air to remove impurities, such as sulfur: Examines pipelines and valves for leaks. Turns valves to charge equipment with product to be treated and to draw off water and spent chemicals after treatment and separation. Adds treating chemicals, such as sulfur and litharge, to product by turning valves or by dumping chemicals directly into equipment. Lubricates, adjusts, and performs minor maintenance on equipment and machinery as directed. May regulate pump speeds to control circulation of solution and product through unit. May gauge tanks with calibrated rod or tape to determine quantity of content [GAUGER (petrol. & gas; petrol. refin.; pipe lines)]. May make chemical, specific gravity, and color tests of product and treating solution to determine process conditions. May draw samples of product for laboratory analysis. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.12 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

549.685-034 WASH-OIL-PUMP OPERATOR HELPER (steel & rel.)
Assists WASH-OIL-PUMP OPERATOR (steel & rel.) in extracting light oil (crude benzol) from coke-oven gas: Opens valves and starts equipment. Reads gauges and records data as directed. Cleans coils, equipment, and work areas, using hose, water, cleaning agents, and broom. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.12 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

549.685-038 WAX MOLDER (foundry; jewelry-silver.)
Tends semiautomatic wax-molding machine that produces wax patterns used in lost-wax casting process: Sprays interior surface of die with parting agent. Places die against stops in bed of machine and starts machine that forces melted wax into die by injection or centrifugal process. Loosens pattern from die, using airhose. Removes pattern from die and inspects it for defects. Cleans excess wax from pattern, using knife. May pour melted wax into holding cup of machine. May be designated according to molding process used as Centrifugal-Wax Molder (foundry; jewelry-silver.); Injection-Wax Molder (foundry; jewelry-silver.).
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

549.685-042 UTILITY OPERATOR III (chemical)
Tends pumps that refill air and hydrogen purification filters with water and solutions to maintain operating levels: Reads gauges to check levels of water, liquid nitrogen, and caustic solution in air and hydrogen purification filters. Starts pumps that refill purification filters with water or other solutions to maintain specified levels. Cleans and changes filters of air and hydrogen driers. Records pressure and temperature readings of compressors, filters, and driers.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 86

549.686-010 BRIQUETTE-MACHINE-OPERATOR HELPER (fabrication, nec)
Assists BRIQUETTE-MACHINE OPERATOR (fabrication, nec) in dehydrating, pulverizing, mixing, and molding ingredients to produce fuel briquettes: Inserts suction hose into opening in top of tank trucks and starts motor to transfer powdered charcoal, coal, or coke from truck to storage. Shovels or dumps sacked briquette ingredients into hoppers. Scrapes ingredients from drying oven with scraper and shovels ingredients onto conveyor. Pounds on conveyor pipes with hammer or woodblock to loosen clogged material. Lubricates machines and removes and installs machine parts as directed by BRIQUETTE-MACHINE OPERATOR (fabrication, nec).
GOE: 06.04.12 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

549.686-014 FELT HANGER (build. mat., nec) alternate titles: dry-talc racker
Installs rolls of untreated roofing felt on feedrack and prepares roll for continuous asphalt-saturating process with aid of another worker: Inserts spindle in mandrel, pushes roll onto feedrack, and secures holding devices over spindle ends. Cuts away roll covering, using knife, threads end of felt through rollers, and splices end to end of previous roll with tape and hot iron. Inspects felt as roll unwinds and repairs defects, such as holes and tears, using tape and iron.
GOE: 06.04.19 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

549.687-010 CHASER, TAR (steel & rel.) alternate titles: tar chaser; tar runner
Removes tar, pitch, and carbon accumulated in coke-collecting mains, using chisel bar: Lifts plugs from collecting main, using hook. Places disk over

plughole and shoves chisel bar through center hole of disk. Twists bar to pry tar from walls of main. Removes tar and pitch from traps, using spooning bar. Sweeps and cleans area. Cleans spray nozzles of collecting mains, using wire-cleaning tool. May apply steam to loosen residue from walls of collecting mains.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

549.687-014 HOTHOUSE WORKER (chemical)
Replaces burner tips, gas pipe, and carbon-collecting channels (flat surfaces) in hothouses (burner enclosures) used to produce carbon black by channel process, using wrenches and pipe-fitting tools. Cleans carbon dust from equipment and work area, using brooms and brushes.
GOE: 06.04.34 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

549.687-018 LABORER, PETROLEUM REFINERY (petrol. refin.) alternate titles: process helper
Performs any combination of following tasks in refinery: Digs ditches, builds dikes and levees, and fills holes with earth, rock, sand, and asphalt gravels, using pick and shovel. Smooths ground surfaces and roadways, using hand tamper. Cleans refining equipment. Removes debris from roadways and work areas, and sprays and hoes weeds. Shovels sand and gravel off vehicles and dumps or shovels cement and sand into mixers. Mixes and pours cement and transports cement to forms with wheelbarrow. Unloads materials, such as tools, equipment, sacks of cement, sand, catalyst, salt, and lime, and oil barrels from freight cars and trucks, manually or with handtruck; and stacks barrels and sacks for storage. Uncrates equipment and parts, such as fractionating or treating towers and bubble trays, using pry bar and hammer; and installs bubble caps, using wrenches. Rips open sacks and dumps chemicals and catalysts into mixing, treating, or storage tanks. Dopes pipelines to prevent corrosion, using doping pot and tar. Changes hoist cables, and rigs chain hoists, rope blocks, power winches, and gin poles used to move or raise equipment. Skims oil from cooling water in water boxes. May be designated according to section of refinery in which work is performed as Laborer, Filter Plant (petrol. refin.).
GOE: 05.12.03 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

549.687-022 MUD-MIXER HELPER (steel & rel.)
Shovels clay, cinders, coke dust, and refuse scraped from oven doors into wheelbarrow, and transfers materials to MUD-MIXER OPERATOR (smelt. & refin.; steel & rel.) for mixing and eventual use in sealing coke-oven doors. Unloads mixed mud from trucks at mud distribution stations, using shovel and wheelbarrow. May clean coke-oven doors and standpipes, using rags.
GOE: 06.04.30 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

55 OCCUPATIONS IN PROCESSING OF CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, AND RELATED PRODUCTS

This division includes occupations concerned with manufacturing basic chemicals, such as acids, alkalies, salts, and organic chemicals; chemical products to be used in further manufacture, such as synthetic organic fibers, synthetic rubber, dry colors, and pigments; finished chemical products to be used as materials in other industries, such as paints, fertilizers, and explosives; plastics powders, granules, pellets, liquids; plastics sheets, blocks, rods, tubes, and laminations; and rubber-stock shapes and objects from natural, synthetic, or reclaimed rubber.

550 MIXING AND BLENDING OCCUPATIONS

This group includes occupations concerned with combining, mingling, or thoroughly fusing materials to produce a single mass or compound or to achieve a desired quality of texture, color, or similar characteristic.

550.131-010 COSMETICS SUPERVISOR (pharmaceut.)
Supervises and coordinates activities of workers engaged in producing liquid, powder, and cream cosmetics: Observes operation of machines to detect malfunctions and directs workers to replace defective parts, such as micro-sifters, mixer brushes, and screens. Blends color bases, following formulas. Examines liquid filterings for clarity and color prior to storage. Examines product for conformance to specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

550.132-010 SUPERVISOR II (chemical)
Supervises and coordinates activities of workers engaged in mixing and packaging chemicals for use in insecticides, fungicides, herbicides and soil fumigants, utilizing knowledge of chemicals and machine operations: Records on batch card quantity and type chemicals required to obtain mixture, using chart. Draws sample from mixing tank, using syringe, and tests dissolvability of liquid in water to determine that product meets specifications. Observes workers to ensure products are processed according to specifications. Trains new workers in methods and techniques of chemical mixing. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

550.132-014 SUPERVISOR, FISH BAIT PROCESSING (toy-sport equip.)
Supervises and coordinates activities of workers engaged in mixing, canning, labeling, and packing paste fish bait: Inspects mixture during processing to ensure conformance to specifications in color, scent, and consistency. Changes formula ingredients or mixing process to ensure adherence to standards. Observes machine operations to determine that product meets quality standards. Trains workers in machine operation and process methods. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

550.135-010 SUPERVISOR, COLOR-PASTE MIXING (textile)
Supervises and coordinates activities of workers engaged in mixing colors for use in printing textiles: Schedules mixing of colors to correspond with production schedule and issues formulas to workers. Compares color smears and printed samples with standard color swatches to determine if mixed colors meet specifications. Alters formulas if colors on printed sample do not match colors on sample swatch, utilizing knowledge of colors and printing requirements. Examines surplus color returned from printshop and schedules its use in other formulas. Inventories and requisitions supplies, such as base colors, starch, oils, and chemicals. Trains workers in operation of machines and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

550.135-014 MIXING SUPERVISOR (plastic prod.)
Supervises and coordinates activities of workers engaged in mixing plastic resins, color pigments, and additives for use in machine molding of plastic items: Reviews production records for each molding machine to determine amount of plastic mixture used and whether amount available is sufficient to fill existing orders, and notifies production control personnel of findings. Determines amount of virgin plastic needed to combine with reground material and reformulates mixing order to meet production requirements. Examines samples of rejected products to determine cause of defect and recommends corrective action, based on knowledge of ingredients and molding machine operations. Trains new employees. Confers with management and subordinates to resolve production problems. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 86

550.137-010 SUPERVISOR, COMPOUNDING-AND-FINISHING (chemical)
Supervises and coordinates activities of workers engaged in compounding, weighing, and packaging of sulfonated oils, esters, stearates, and industrial soaps: Directs workers in compounding ingredients, using knowledge of chemical properties and reactions of ingredients. Reviews cumulative weight charts and examines compounds in process to detect discrepancies in weight, odor, clarity, and color. Designates type and size of container for packaging, according to product. Reviews laboratory analysis of samples and orders changes in process specifications, according to knowledge of chemical processes, ingredient characteristics, and experience with specific products. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

550.137-014 SUPERVISOR, PASTE MIXING (chemical)
Supervises and coordinates activities of workers engaged in mixing ingredients of pastes used to form cores or to line cans of dry cells. Computes amounts of ingredients required from work orders and formulas. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

550.137-018 SUPERVISOR, SHIPPING (chemical)
Supervises and coordinates activities of workers engaged in milling, blending, bagging, and shipping dry glue: Directs workers in moving and assembling prescribed amounts and kinds of glue for blending and shipment. Inspects assembled items and verifies amounts to ensure compliance with specifications. Directs worker to blend ingredients for specified period of time. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

550.362-010 FROTHING-MACHINE OPERATOR (rubber goods)
Operates *frothing machine* to mix air with latex for use in making foam rubber products: Observes gauges and turns valves to regulate flow of latex and air into frothing tank. Starts agitators in frothing tank to mix air with latex. Weighs out specified quantity of mixed latex and compares with formula to determine density of latex. Drains latex from frothing tank into holding tanks. Signals POURER (rubber goods) when latex is ready for molds. Regulates temperature and spray pumps in preconditioning chamber to heat and coat molds in preparation for loading.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

550.381-010 COLOR MATCHER (leather mfg.; plastic-synth.; tex. prod., nec)
Mixes pigments or color concentrate to formulate coloring solutions used in dyeing leather or coated fabrics: Compares sample of desired color with standard color specifications to determine pigments required. Weighs and mixes pigments or concentrate with thinning and drying solutions until mixture matches sample. Dyes piece of leather or coated fabric and compares it with sample to verify color. May examine color of dispersed pigment, using color-checking lamps. May weigh, add, and mix ingredients to correct color discrepancy. Records specifications necessary to produce desired color.
GOE: 06.02.32 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

550.381-014 TINTER (paint & varnish) alternate titles: color matcher; color shader; finish mixer; paint tinter; shader

Mixes pigments or base colors with paints, enamels, or lacquers to match standard or sample colors, following formulas and standard color samples: Starts agitator in tank filled with basic paint product. Pours pigments or base colors from containers and dumps specified amounts into tank to color basic product. Smears sample of batch on glass or paper, using spatula or brush, and compares sample with standard color, using colorimeter. Repeats operation to attain specified shade. Records ingredients added on batch ticket. Ladles sample into container, writes identifying data on container, and submits sample to laboratory for final color, gloss, weight, and viscosity tests. May add materials to thin batch [THINNER (paint & varnish) 550.585-038]. May remove foreign matter from batch, using centrifuge [CENTRIFUGE OPERATOR (paint & varnish) 551.685-034]. May weigh sample and calculate weight per gallon. May determine specific gravity, using hydrometer. May test for viscosity, using viscometer. May be designated according to product colored as Enamel Shader (paint & varnish); Lacquer Shader (paint & varnish); Latex-Paint Shader (paint & varnish); Oil-Paint Shader (paint & varnish).

GOE: 06.02.11 STRENGTH: M GED: R3 M2 L3 SVP: 6 DLU: 78

550.382-010 COLOR MAKER (chemical)

Controls equipment to make dyes from coal tar derivatives: Measures coal tar derivatives, using balance scale or graduated container, dumps them and required amounts of sodium salt of nitrous acid with hydrochloric acid into vat of water, and starts agitator to make chromogen (dye-forming substance). Adds ice to chromogen to maintain temperature at prescribed level. Dips litmus paper into chromogen to determine its acidity. Adds required amounts of auxochromes (salt-forming materials) to chromogen to strike (form) dye. Tests acidity of dye, using pH meter, and corrects variances from standard by adding specified acid or alkali to dye.

GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

550.382-014 COLOR MAKER (tex. prod., nec)

Operates machines to mix or grind daub, printing ink color, and color pigments, for artificial leather: Calculates batch size according to roll yardage to be coated. Weighs and measures, according to formula, components, such as ball mill mix, color pigments, and oils to attain colors and specified consistency. Moves components to agitator or ball mill mixers and roll grinders for processing, using handtruck. Dumps ingredients into and starts machines that grind and mix them. Collects color sample and compares it with color standard. Adds ingredients, such as white, clear, or colored pigments, or thinner to correct color discrepancies. Prepares new color batches when drum content in inventory storage is low. Lifts and moves drums, using portable air-operated hydraulic hoist. May be designated according to operation performed as Ball-Mill Mixer (tex. prod., nec); Daub-Color Matcher (tex. prod., nec); Daub-Color Mixer (tex. prod., nec); Grinding Operator (tex. prod., nec); Print-Color Matcher (tex. prod., nec); Print-Color Mixer (tex. prod., nec).

GOE: 06.02.11 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

550.382-018 MIXER OPERATOR I (chemical) alternate titles: blender operator; mixing-house operator

Controls mixing machine and auxiliary equipment to blend ingredients for explosives, such as dynamite, smokeless powder, and solid-propellant rocket fuel: Weighs out and charges specified quantities of solid materials into mixer, or feeds preweighed materials into mixing chamber. Meters prescribed quantities of liquid chemical agents, such as nitroglycerin, wetting agents, catalysts, or solvents into machine. Starts mixer to blend ingredients for specified time or until prescribed reaction occurs. Tilts mixer to discharge contents, moves dump lever, or shovels materials into containers for storage, shipment, or further processing. May compute quantities of chemical agents required for batch of given size, according to formula. May tend auxiliary equipment units, such as dissolving tanks, oven, or vibrating screens, to prepare or further process materials before or after mixing. When blending ingredients for pyrotechnic tracer shells, is designated Composition Mixer (chemical). When mixing nitroglycerin and dry ingredients to produce dynamite, regulating mixer speed and ingredients according to grade and type of dynamite specified, is designated Dope Mixer (chemical).

GOE: 06.02.18 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

550.382-022 MIXING-MACHINE OPERATOR (any industry)

Operates mixing machine to blend ingredients into compounds for processing: Loads ingredients into mixing machine hopper from conveyor, scales, or handtrucks, or directs other workers in performing this task. Starts machine and adjusts valves to admit steam or cooling fluids to steam jacket or devices in mixing chamber to aid in blending and densifying mixture. Operates machine until mixture reaches desired consistency, and turns lever to unload mixture into container, conveyor, or mill for sheeting. May operate auxiliary equipment to break up, grind, dry mix, or otherwise prepare mixture for final processing. May tend automatic mixing machine. May be designated according to trade name of machine.

GOE: 06.02.13 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 78

550.382-026 OPERATOR, CATALYST CONCENTRATION (plastic-synth.)

Controls equipment, such as dissolving and mixing drums, catalyst chillers, heat exchangers, filters, moisturizer, vacuum strippers, pumps, and auxiliary equipment to dissolve and blend catalytic agents with isobutylene extract, and mix additive chemicals used to slurry butyl polymers: Empties catalyst from drums into dissolving drum to maintain specified concentration. Turns valves and instrument control dials on units and control panel to maintain required temperatures, pressures, and flow rates. Starts pumps that blend catalyst and feed stock in specified proportions and circulate catalyst through moisturizer, chillers, filters, and vacuum strippers. Weighs solid chemicals in required batches. Starts mixing tanks to blend additive chemicals used to slurry butane polymers. Pumps additives to storage drums. Turns valves or lowers liter bottle into vessels to take samples for laboratory tests. Gauges storage tanks. Records meter and gauge readings, quantities of chemicals used, and other operating information.

GOE: 06.02.13 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

550.382-030 ROOF-CEMENT-AND-PAINT MAKER (build. mat., nec; nonmet. min.)

Operates one or more mixing machines to combine tar, asbestos fiber, asphalt, or similar ingredients to make roof coating and cement: Starts mixing machine and pump and opens line valve to admit asphalt into mixing machine. Observes indicator or measuring stick and stops asphalt flow when specified amount has entered mixing machine. Dumps specified ingredients through well into mixing tank or starts conveyor and dumps ingredients onto conveyor leading to mixing machine. Reads ammeter to determine consistency of mixture and adds materials as needed, or visually determines when mixture has attained consistency and stops mixing machine. Draws off sample of mixture for laboratory testing. Turns lock bolts to open lines between mixing tank and storage tank, using wrench. Keeps record of batch made, including deviations from written formula.

GOE: 06.02.18 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

550.382-034 SOLUTIONS OPERATOR (plastic-synth.)

Controls equipment to blend butadiene-styrene latexes together with processing oils, stabilizers, and other additives to produce various kinds of synthetic rubber according to formulas: Turns valves to connect pipelines from storage tanks to blending tanks or weigh tanks. Starts pumps and agitators. Turns valves to discharge blended materials from tanks into streams for coagulation. Pumps latex into blending tanks to obtain specified mixtures. Gauges tank or observes markings on side of tank to verify specified volumes of each type of latex. Observes dials and pumps specified amounts of additive materials into weigh tanks. Discharges additives into blending tanks. Takes samples of blends for laboratory testing. Records blend data in logs.

GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

550.485-010 CHEMICAL MIXER (photofinishing)

Tends machine that mixes specified chemicals and liquids according to formula to prepare solutions for use in processing exposed film: Opens valves and starts pumps to transfer specified amount and type of liquid from storage tank into mixing tanks. Weighs specified chemicals on scale and dumps chemicals into mixing tank. Activates mixing tank agitators and sets timer to mix ingredients for specified period of time. Observes gauge readings on mixing tank and adjusts temperature and flowmeter controls when readings vary from established norms. Obtains sample of solution in tube and tests for acidity or alkalinity, using pH meter. Submits sample of solution to laboratory for analysis, reviews analysis, and adds required amounts of chemicals to attain solution of specified standard. Opens valves and pumps solution into storage tank. May recover silver or other chemical solid from used solution by electrolysis, using reclamation tank, or by chemical precipitation, using centrifuge.

GOE: 06.02.11 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

550.485-018 PAINT MIXER, MACHINE (any industry)

Tends paint-mixing machines that mix paint, lacquer, and stain: Attaches powered mixer to barrels of unmixed paint and starts mixer to stir paint for specified time to obtain specified consistency. Computes amounts and weights of paint, lacquer, solvent, or thinner required from standard formula, and pours specified amounts into mixing machine. Starts mixer and allows it to run for prescribed time to attain specified viscosity and color. Measures viscosity, using viscosimeter and stop watch. May pump paint from central pumping station to spray booths. May filter paint or pyroxylin to remove impurities. May maintain record of paint issued and inventory of supplies on hand.

GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

550.485-022 POWDER BLENDER AND POURER (chemical)

Tends equipment that blends various types of propellent powders used in manufacture of small arms ammunition: Examines and verifies powder with identifying data on container and type of powder specified on work order. Pours powder from containers into partitioned hopper and turns knob to adjust rate of flow from hopper compartments according to powder blend proportions. Verifies accuracy of hopper adjustment by drawing powder sample from each hopper compartment, using stopwatch to time flow, and weighing samples and calculating rate of flow; or by starting agitator that shakes powders into blending tube, separating blended powders according to grain size, using sieve, and weighing each size. Readjusts hopper controls as indicated by rate-of-flow or sieve test until powder proportions match specifications. Replaces full containers of blended powder under discharge tube. May fill small containers with powder by hand.

GOE: 06.04.11 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

550.485-026 PULVERIZING-AND-SIFTING OPERATOR (chemical)

Tends mechanical equipment, such as jaw crusher, disintegrator, ball mill, swing hammer mill, agitator sifter, and silk screen shakers that pulverize and

sift ingredients of propellent and priming powders preparatory to blending: Feeds raw material into machine or hopper, using hands or scoop. Adjusts machines to reduce material to granules of desired size by turning screw, using spanner wrench, to adjust space between reciprocating crusher jaws, or turning rheostat to regulate vibrator speed controlling rate of flow into disintegrator, or changing number of balls or hammers in mills, depending on type of machine used. Tends agitator-sifter to sift pulverized ingredients to obtain granules within specified grain size in desired proportions. Sends sample to laboratory and computes quantity of individual grain size to be added or screened out to bring blend to acceptable proportions. Changes screens, using wrench, to produce desired size granules. Pours sifted material into drum and rolls drum on floor to blend material. Tends shaker machine to sift pulverized glass through silk screen for blending in priming mixture. May hand blend priming compounds.
GOE: 06.02.18 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

550.564-010 METAL-BONDING CRIB ATTENDANT (chemical)
Mixes, stores, and issues metal bonding adhesives for use by workers assembling metal parts for aircraft, missile and space vehicles, marine craft, or trailer parts: Measures and weighs ingredients according to formula to obtain specified weight and proportion, using scales, balances, and graduated vessels. Dumps ingredients into machine, and starts machine that mixes ingredients into adhesives. Removes adhesives from machine and stores them in bins. Requisitions ingredients, issues adhesives to workers, and keeps records of disposition of materials.
GOE: 06.02.32 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

550.565-010 PRIMER-POWDER BLENDER, DRY (ordnance)
Tends equipment that blends and screens dry explosive powders in cloth, cone-shaped mixing and screening device to make primer powder for centerfire cartridges: Selects and carries predetermined quantities of ingredients from storage magazines and dryhouse to mixing house. Positions containers in specified order on dumping shelf of mixing device. Moves dump arm by remote control from behind cement wall to empty containers in mixing bag. Turns mixing crank specified number of times to move bag center up and down to blend powders, observing operations in mirrors set at angles. Pours blended powder into rubber containers, marks with identifying data, and carries them to storage magazines. Washes equipment and premises to prevent accumulation of explosive dust. Mends and replaces torn mixing bags, using needle and thread. Repairs screens and attaches bags to wall of mixing cylinder, using special lacing and tying technique. May blend wet mixtures [PRIMER-POWDER BLENDER, WET (chemical)].
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

550.582-010 PRIMER-POWDER BLENDER, WET (chemical)
Controls mixing kettles to blend explosive ingredients and produce wet priming mixture used in rim-fire cartridges: Carries prescribed quantities of dry powder, ground glass, liquid gum, and other ingredients from storage house to control house. Measures and mixes specified amounts of ingredients in rubber basin, using rubber spatula. Carries initial mixture to isolated mixing house and scoops it into mixing machine. Returns to control house and starts mixer, using switch on control panel. Stops mixer at designated intervals to add ingredients and to examine mixture to detect degree of dryness, adding water as required to prevent ignition of mixture during blending. Scoops blended mixture into rubber containers (boats), marks boats with identifying data, and carries them to storage house. Washes equipment and premises to prevent accumulation of explosive material. May prepare ingredients for blending.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

550.582-014 WEIGHER-BULKER (chemical)
Operates battery of agitator-equipped tanks to blend base perfume fragrances for use in items, such as soaps, perfumes, and insecticides: Rolls drums or trays of solid material into heating chamber to melt and prepare for bulking. Sets thermostat to prescribed temperature and leaves drums in chamber for specified period. Starts blower to cool chamber. Pushes materials to bulking area. Rolls trays of containers or drums of liquid material to bulking tanks. Dumps or pumps specified quantities into tanks. Starts agitators in tanks and allows materials to blend for specified periods. Examines materials in tanks for impurities and to determine if color conforms to standard. Places empty drum on preset floor scale. Attaches filter press hoses to outlet on blending tank and to drum intake spout. Opens valve to drain material from tank through filter press to drum. Sets thermostat at prescribed temperature and dumps flaked or crystallized material into steam-jacketed kettle to melt. Ties filter cloth on discharge spout, and turns spigot to drain material into bucket. Dumps material from bucket into casting trays and allows to cool until congealed. Removes congealed cubes or slabs from casting trays, using wooden mallet, and stores in plastic lined containers. Draws off samples from each bulked lot and labels it for laboratory files. Seals containers. Stencils lot numbers on drums or affixes labels to bottles and cans. Maintains record of bulking operations. Transports drums and other containers on trays or handtrucks to storage room. Cleans tanks, filter presses, and other equipment, using solvents, hoses, and brushes. May add prescribed chemicals to bulked materials to neutralize acid or control color. May blend materials by stirring with paddle.
GOE: 06.02.11 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

550.584-010 FLUX MIXER (chemical)
Mixes soldering flux, and supplies soldering or welding machines with flux and solder: Mixes flux in crock or vat according to formula, using paddle. Tests consistency of flux with hydrometer. Carries or trucks flux or solder to machines. Cleans reservoirs of spent or stale flux, using solvent. Keeps records of solder and flux consumed and salvaged.
GOE: 06.04.34 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

550.584-014 SAMPLE-COLOR MAKER (paint & varnish)
Mixes color samples from standard pigments and production pigments, for subsequent comparison of color characteristics, to ensure conformity of production pigments with standard pigments: Weighs out specified amounts of standard and production pigments and places them on glass plates or in beakers. Mixes pigments with specified vehicle, such as water or oil to form color samples, using spatula. Smears samples on paper and rubs samples with paint scraper or glass rod. Writes identifying data on color sample sheets and submits sheets to supervisor for evaluation.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

550.585-010 BINDER TECHNICIAN (glass mfg.)
Tends machine that mixes binder fluid used in production of fiberglass sliver or mats: Weighs and measures ingredients according to formula and pours or dumps ingredients into mixing vats. Turns valve to start flow of water and steam into vats and starts portable or power mixer to agitate ingredients for specified time. Observes temperature charts and thermometers to determine if specified temperature is maintained. Turns valve to increase flow of steam or water to regulate temperature of mixture or notifies supervisor of excessive temperatures. Dips beaker into vat to obtain sample of binder fluid and delivers sample to testing room. Obtains test results and adds ingredients according to instructions or turns valve to start flow of binder fluid into specified circulatory tank. Cleans mixing vats, mixers, and other equipment, using water and cloths. Records number of batches mixed, ingredients used, gallons mixed, gallons lost, and net gallons mixed for inventory and production records.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

550.585-014 CELLOPHANE-BATH MIXER (plastic-synth.)
Tends equipment to mix and transfer acid bath that coagulates viscose solution into cellophane: Starts pumps and evaporators to mix bath ingredients, such as acid, softener, and bleach, according to specifications, and to transfer bath solution to storage tanks. Observes indicators and controlling instruments and turns valves to regulate flow rate, temperature, and pressure of solution in pipelines and evaporators. Tests acidity of bath, using pH meter, or draws sample for laboratory analysis. Maintains record of bath temperature, acidity, and operating conditions of equipment.
GOE: 06.04.13 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

550.585-018 CHEMICAL MIXER (textile)
Tends equipment that mixes chemicals for use in bleaching, cleaning, desizing, latexing, mercerizing, and finishing canvas goods, carpets and rugs, felt goods, and textile yarns and fabrics: Weighs or measures quantities of ingredients, such as peroxide, silica, caustic, solvents, emulsions, resins, starches, and detergents, following formula, and pours them into mixing tank. Turns valves to admit water into tank up to mark on tank wall. Starts mixer and allows solution to mix for specified period of time. Turns valve to transfer solution from mixing tank to storage tank. Tests solutions in storage tanks with hydrometer, viscosimeter, or by titration to detect variations from standards and adds appropriate ingredients to restore solution to standard strength. Records test results, batches of solutions mixed, and chemicals used in each batch for production and inventory purposes. May inject steam into solution to dissolve ingredients or cook solution to specified consistency. May be designated according to solution mixed as Acid-Bath Mixer (textile); Ammonia-Solution Preparer (textile); Caustic Mixer (textile); Gum Mixer (textile); Latex Compounder (textile); Size Maker (textile); Soap Mixer (textile); Waterproofing Mixer (textile).
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

550.585-022 COATING OPERATOR (chemical)
Tends battery of mixing vessels that mix chemical solutions with process catalysts to apply chemical coating, such as alumina: Starts pump to admit coating solution to automatic measuring tank and to transfer solution from measuring tank to coating vessel. Starts agitator to mix solution. Draws sample from coating vessel, using dipstick, and tests for specified balance between acidity and alkalinity, using pH meter. Turns valve to add solutions to coating vessel until required balance is achieved. Stops agitator and pumps mixture to storage tanks after specified mixing time. Records processing time and pH reading on operating record.
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

550.585-026 LIME-SLUDGE MIXER (paper & pulp)
Tends agitator tanks that mix chemicals with lime sludge to produce filler used in finishing paper: Adjusts valves to control flow of sludge through filter screen into agitator tank. Adds acid and alum, and starts agitator to stir mixture. Tests alkalinity of mixture by titration test, and adds acid or alum as necessary. Weighs specified samples of sludge and compares them with standard chart to determine density. Screens sludge sample through wire mesh to detect presence of foreign matter. Records test results and quantities of sludge processed.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

550.585-030 NITRATING-ACID MIXER (chemical)
Tends mixing tanks and auxiliary equipment to combine acids or other specified liquid ingredients to produce solutions for manufacturing explosives, such

as nitroglycerin, tetryl, and TNT: Pumps specified liquids through metering or weighing tanks into mixing tank. Starts tank agitator to mix ingredients for specified time. Draws samples of product for laboratory analysis and transfers additional ingredients to tank until product meets plant standard. Pumps mixed product to storage, tank cars, or other processing units. May turn steam or coolant valves to heat or cool product during mixing, maintaining temperature in equipment within prescribed limits as indicated by tank thermometer. May maintain records of mixing time, gauge readings, and number of batches produced for shift log. May be designated according to product produced as Ammonium-Nitrate Neutralizer (chemical); Dimethylaniline-Sulfator Operator (chemical).
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

550.585-034 PASTE MIXER (chemical)
Tends mixing machine or mulling mill that mixes lead oxide powders, water, and acid into paste for storage-battery grids: Measures or weighs specified amounts of oxide, water, and acid, using barrels, buckets, or measuring tanks. Dumps barrels of oxide into mixer or into pit equipped with bucket elevator and conveyor leading to mixer. Starts mixer and turns valves to add specified amount of water and acid to oxide. Tests sample of paste for temperature, solidity, and density, using probe thermometer, penetrometer, and gram scale and records results. Dumps mixture into cart and pushes or pulls cart to pasting machine. Records batch weight and starting and withdrawal time. Cleans machine, using water and brush. May tend equipment to heat and mix ingredients of liquid paste and be designated Paste Mixer, Liquid (elec. equip.).
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

550.585-038 THINNER (paint & varnish)
Tends equipment to mix specified amounts of liquid and powdered ingredients, such as oils, solvents, lead salts, and resins, with paint products, such as paint pigment and paste, varnish, and stain, to thin products: Weighs ingredients, using scales, and dumps into mixer. Turns valves on storage tanks to admit specified liquids into mixer, and starts power agitator to blend ingredients. Starts pump to transfer batch to storage tank or clarifying machine. Writes identifying code on tanks and records quantities and types of ingredients added to batch. May be designated according to mixture thinned as Bulk-Pigment Reducer (paint & varnish); Paste Thinner (paint & varnish); Stain Maker (paint & varnish); Varnish Thinner (paint & varnish).
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

550.585-042 TRACER-POWDER BLENDER (chemical)
Tends machines and equipment that prepare and blend dry and liquid chemicals to produce flammable mixtures of specified composition for igniter, subigniter, and tracer powders used in tracer bullets: Weighs and measures amounts of ingredients in pounds, ounces, and drams, according to chart, using bench scale and beakers. Tends remote-controlled tumbling barrels to blend chemicals, adding ingredients in designated sequence at timed intervals; steam-heated oven to dry ingredients; and remote-controlled ball mill to pulverize dried ingredients, adding required number of rubber balls to achieve prescribed degree of pulverization. Sifts powder through silk screen by hand. Pours finished mixes into rubber pouches, marks with identifying data, and carries them to storage magazines. Brushes, washes, and hoses equipment and premises to prevent dangerous accumulation of powder.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

550.585-046 WAX BLENDER (fabrication, nec)
Tends equipment to color wax used in candles: Weighs and dumps wax into kettles, according to specifications. Turns valves to circulate steam through jackets or turns thermostat knob to heat wax to specified temperature. Turns valve or starts pumps to transfer molten wax to tanks and kettles and adds prescribed dye to color wax. Pours wax into molds to form sample candles and examines candles to ensure compliance with specifications. Records quantities and types of wax used.
GOE: 06.04.19 STRENGTH: H GED: R3 M1 L2 SVP: 3 DLU: 77

550.586-010 BLENDER HELPER (plastic prod.; plastic-synth.)
Transports materials from storage areas, using handtruck: Weighs materials on platform scales and records weights. Loads materials in bags or in tubs on conveyor to transport them to blending machine. Raises and transports drums of liquid ingredients, such as oils, using hoist. Empties drums, using bung-wrench, and turns valves to admit liquid ingredients into tanks. Opens sacks with knife and empties dry materials, such as clay, carbon black, or glass filler, into blending machine. May press buttons to start agitator. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

550.587-010 MAKE-UP OPERATOR HELPER (chemical)
Weighs dry chemicals in batches, records weights on process sheets, and transfers materials to mixing area, using handtruck. May collect samples of solutions for laboratory tests. May clean tanks, process lines, hoppers, and other equipment.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

550.587-014 SAMPLE COLLECTOR (chemical)
Mixes fertilizer samples preparatory to laboratory analysis: Collects material from storage bin, railroad car, or bagging area, using auger or shovel. Dumps material onto mixing table. Blends material, using shovel, paddle, or hands. Pours blended sample into container, writes identifying information, such as material, date, and sample number, on label and attaches label to container. Collects samples of granulated fertilizer during various stages of processing, pours sample through riffle (separator) to mix and reduce amount to representative sample, and sends sample to laboratory for analysis.
GOE: 06.04.17 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

550.662-010 BLEACH-LIQUOR MAKER (paper & pulp)
Controls chemical reaction vats and mixing equipment to compound pulp bleaching solution, following specifications: Starts conveyor and opens valve to dump specified quantities of lime or sodium hydroxide and water into mixing tank to make lime slurry. Starts pump and turns valve to start flow of chlorine and lime slurry to chlorinating tanks. Adjusts controls to regulate temperature of solution to prevent adverse chemical reactions. Starts mixing machine in tank to mix bleaching solution. Sprinkles indicator solution on top of mixture in tank or makes titration test to determine completion of chemical reaction. Starts pumps to transfer bleach solution to storage. May control reaction cells and *absorption tower* in which chlorine dioxide bleaching gas is formed from calcium chlorate and sulfurous acid. May operate conveyor to remove bulk lime from railroad cars to storage bins. May connect pipe and hose lines to tank cars containing chlorine gas.
GOE: 06.02.14 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

550.663-010 FORMULA WEIGHER (rubber goods)
Operates tram car, suspended from monorail, beneath overhead storage bins to collect and weigh powdered chemicals in weighing bin, according to laboratory formulas, and empties assembled ingredients into chute of mixer: Moves levers to drive electrically powered car from one bin to another and to raise accordionlike mouth of weighing bin to mouth of storage bin. Pulls lever to drop chemical from storage into weighing bin and observes scale until weight specified is reached. Moves car and repeats weighing until each specified ingredient is added. Scoops from barrels, and weighs and adds by hand, quantities of chemicals too small or too rarely used to warrant storing in bins. Positions bottom of weighing bin over mixer chute, and on all-clear-light from MIXING-MACHINE OPERATOR (any industry), depresses pedal to drop accumulated chemicals into mixer chute. Confers with MIXING-MACHINE OPERATOR (any industry) to discuss changes in chemicals or quantities specified.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

550.665-010 BLENDER II (chemical)
Tends equipment that blends batches of smokeless powder to obtain final product having uniform ballistic properties: Moves levers in control room to activate rotation equipment or to transfer powder repeatedly between top and bottom bins to effect thorough mixing. Opens vent in bottom bin to dump powder into containers or buggies for storage, shipment, or further processing. May add or remove powders in rotating blender barrels, using hand scoop, to adjust mixture or remove sample. When tending machine equipped with toothed rotors to blend powder, is designated Macerator Operator (chemical). May be designated according to kind of powder blended as Tetryl-Blender Operator (chemical).
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

550.665-014 COMPOSITION MIXER (fabrication, nec)
Tends mixers that blend ingredients for use in production of hard-surface floor covering: Positions charge chute on mixer and signals worker to charge machine with preweighed ingredients. Pulls lever to close mixer, starts mixing mechanism, and sets steam and temperature controls. Examines color and consistency of mix to determine whether ingredients are blended according to specifications. Starts machine drive to discharge mix into sheet mill or shovels mix into container. May pull lever of hydraulic dump cylinder to discharge mix into bucket of lift truck.
GOE: 06.04.19 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

550.665-018 FERTILIZER MIXER (chemical)
Tends machine that mixes nitrogen, phosphate, and potash to produce fertilizer: Pulls lever to feed dry materials from storage hopper into mixer. Observes gauges and turns valves to admit specified amounts of liquids, such as ammonia and sulfuric acid, into mixer. Stops mixer after specified time and turns handwheel or pulls lever to dump batch onto conveyor.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

550.665-022 MOTTLER OPERATOR (fabrication, nec)
Tends mottling machines that blend prescribed color mixes to achieve specified patterns or shade combinations for finished hard-surface floor covering: Selects specified mix from storage area and moves mix to charging station, using handtruck. Divides panned mix into portions, according to formula, weighs fractional quantities on balance scale, and dumps them into hopper of machine. Weighs filler, whiting, and other material as specified, using floor scale, and dumps them into hopper. Sets timer on mottler for prescribed cycle, or examines mix periodically to determine when desired mottle has been achieved. Shovels mottled mix into trucks for delivery to storage area.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

550.682-010 SIZE MAKER (paper & pulp)
Operates equipment to cook and mix materials, such as starch, casein, resin, chemicals, and fillers, according to formula to make size for pulp paper: Turns valves to fill cooking vats with metered volumes of liquid ingredients and dumps specified amounts of solid ingredients into vats according to formula. Turns steam valves or adjusts burner to maintain specified temperature in vats for cooking starch, resin, or casein with water, lime, and chemicals. Opens

drain valve or starts pump to transfer cooked material to mixing machine, dumps specified weights of alum, lithopone, clay, or titanium dioxide into machine, and starts machine to mix ingredients for specified length of time. Adds chemicals to mixture, according to specification, to prevent decomposition. Drains or pumps size to specified storage tanks.
GOE: 06.04.14 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

550.682-014 TANNING-SOLUTION MAKER (chemical)
Controls series of vats that boil tanbark, quebracho, chemicals, and water to prepare tanning solution: Weighs specified amounts of materials on scale and dumps them into vat. Opens valves to admit water and steam into vat. Adjusts steam valve to maintain solution at specified temperature. Tests sample of solution for specific gravity, using hydrometer. Adds materials to solution to obtain solution of specified gravity. Starts pump to transfer solution from vat to storage tank. May grind bark or wood, using grinding machine.
GOE: 06.04.11 STRENGTH: M GED: R3 M1 L2 SVP: 5 DLU: 77

550.684-010 COAGULATING-BATH MIXER (plastic-synth.)
Prepares coagulating bath used to transform cellulose slurry into rayon filaments, according to formula or proportion chart and process specifications: Measures prescribed types and quantities of bath ingredients, depending on forming process used in plant. Dumps or pumps ingredients, such as caustic soda or sulfuric acid, sodium sulfate, zinc sulfate, and glucose into mixing tank for transfer to trough containing water into which slurry is extruded. Tests acidity or alkalinity of bath at specified intervals, using pH meter, and adds additional ingredients to maintain solution at prescribed standard. May be designated Acid-Correction Hand (plastic-synth.) in plants producing rayon by viscose process.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

550.684-014 DYE WEIGHER (any industry) alternate titles: chemical weigher; color weigher; drug-room clerk; dye maker; dyer assistant
Mixes dyes and chemicals for use in dyeing products, such as fabrics, hosiery, and yarns: Weighs out quantities of powdered or liquid dyes and chemicals, following formula sheet. Pours dyes and chemicals into pail or mixing tank and turns valve to admit water into tank or pail up to mark on container wall. Stirs ingredients with paddle and injects steam into solution to dissolve dye. Dumps contents of pail into supply tank or turns valves to transfer dye solution from mixing tank to supply tanks in dye room. Inventories dyes and chemicals and notifies DYER, SUPERVISOR (knitting; tex. prod., nec; textile) 582.131-014 as supplies are needed. May be designated according to dye mixed as Indigo Mixer (textile).
GOE: 06.04.34 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 81

550.684-018 PAINT MIXER, HAND (any industry)
Mixes stains, paints, and other coatings for use in painting according to formulas: Pours pigments, paint paste, vehicle, and thinner into can. Stirs mixture with paddle. Compares mixed liquid with desired color sample to ensure that it matches. May blend colors to obtain desired shades. May test specific gravity of mixture, using hydrometer. When mixing colors for spray painting, may be designated Spray Blender (any industry).
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

550.684-022 PRIMING-POWDER-PREMIX BLENDER (chemical)
Weighs and blends powdered ingredients to form priming mixtures for small arms ammunition: Weighs specified amounts of pulverized and sifted ingredients and filters them by hand in prescribed order through silk screen onto blending paper. Lifts each corner of paper and pulls slowly toward diagonally opposite corner to fold and blend powder until examination of color shade indicates blending is accomplished. Pours mixture from paper into cardboard containers and marks containers with identifying data.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

550.684-026 SILVER-SOLUTION MIXER (chemical)
Mixes silver solutions for spraying lacquer disks (original recording): Measures prescribed quantities of premixed silver solution and combines with distilled water. Tests mixed solution for conformity to standards, using laboratory test equipment. Deposits mixture in containers or spray tanks. May analyze plating solutions for conformity to standards.
GOE: 06.04.34 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

550.685-010 BATCH MIXER (soap & rel.)
Tends mixer that compounds cleaning powder: Opens valves to admit specified quantities of ingredients into mixer or weighs and dumps ingredients into mixer, using scale. Presses button or moves lever to activate mixer that blends ingredients for designated time. Stops machine and opens valve to discharge cleaning powder into storage bins. May draw sample of blended ingredients for laboratory analysis. May keep production log.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

550.685-014 BLENDER I (chemical)
Tends machine that blends batches of flushed colors derived from coal tar hydrocarbons: Dumps specified flushed pigments or dyes into tub of machine, using hoist. Adds specified chemicals to batch according to product specifications. Starts agitator to mix ingredients for specified time. Turns valves to pump blended pigments or dyes into storage tanks or drums.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

550.685-018 BRINE MAKER I (chemical)
Tends tanks, filters, and auxiliary equipment that produce brine solution for use in electrolytic cells: Pumps water through salt beds or starts conveyor bringing salt from storage area for dissolution in water, producing mixture of specified salt content. Admits salt water and specified amounts of liquid chemicals, such as caustic soda or acid, to mixing tank to produce brine solution meeting plant standard. Pumps solution to settling tank to settle out impurities and through sand-bed filters for final purification. Draws sample of brine for laboratory analysis or tests density, salt content, and acidity, using hydrometer, salinometer, and pH meter. Turns valves to transfer brine to electrolytic cells and maintain brine at specified levels in supply lines, tanks, and cells. May dump materials into brine to adjust chemical composition to plant standard, using titration test to determine strength of solution. May pump water through resin and carbon beds to demineralize it. May tend heat exchanger to maintain temperature of brine within specified limits. When pumping brine through filters only, is designated Brine Purifier (chemical).
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

550.685-022 CD-MIXER (rubber reclaim.)
Tends machine that mixes ground scrap rubber with pigments, caustics, and oils to prepare rubber for devulcanization: Pulls slide on gravity chute or shovels ground scrap rubber into weigh hopper. Pulls lever to dump scrap rubber from weigh hopper into mixer. Measures and weighs pigments, caustics, and oils according to formula, and dumps or drains them into mixer. Starts machine that mixes materials for specified time. Pulls lever to release mixture from machine into pans. Lifts pans onto heater cars by hand or with hoist. Signals worker to move pans of mixed stock into heaters. May tend cracker mill that grinds scrap rubber into particles [GRINDER (rubber goods; rubber reclaim.)]. May unload heaters and dump devulcanized scrap rubber from pans. May line pans with waxed paper or sprinkle with pulverized soapstone to prevent rubber from sticking.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

550.685-026 CEMENT MIXER (rubber goods; rubber tire)
Tends machine that mixes synthetic or natural rubber with solvents and chemicals to produce liquid rubber cement: Weighs and measures specified amounts of rubber, chemicals, and solvents, according to mixing instructions. Breaks down full batch formulas into partial batches and samples. Presses buttons to activate electrically driven paddles that stir mixture, or stirs mixture by hand, using paddle. Opens petcock of mixer to discharge cement into cans, or opens pipeline valves to transfer cement. Records types of cement mixtures and production of each.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

550.685-030 CHEMICAL PREPARER (chemical; electron. comp.)
Tends equipment that compounds ingredients into chemical solutions used as adhesive or conductive coatings for electron tubes: Weighs and measures specified type and quantity of liquid and powdered ingredients. Pours, dumps, or pumps ingredients into mixing equipment. Starts equipment that compounds chemical ingredients and deionized water into chemical solutions, such as frit or conductive graphite. Tests mixture for conformance to prescribed standards, using testing devices, such as pH meter, resistivity meter, titration apparatus, colorimeter, thermometer, and viscometer. Pours compounded product into containers for application to tube seams, funnel, or ceramic parts by other workers.
GOE: 06.04.11 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 88

550.685-034 CHURN TENDER (plastic-synth.)
Tends rotary mixer that blends aged alkali-cellulose crumbs with carbon disulfide to form cellulose xanthate for further processing into cellophane or rayon: Couples pipe to mixer to admit specified amount of carbon disulfide to churn (mixer chamber) filled with alkali-cellulose crumbs by other workers. Starts drum rotating, observes gauges, and moves or sets controls to maintain temperature of churn and length of mixing cycle within plant specifications. Stops machine and turns valve to expel excess gas remaining in drum. Opens hatch and dumps cellulose xanthate into cart or machine hopper for further processing. Scrapes interior of drum, using putty knife or scraper, to remove product residue before preparation of next batch. May tend continuous process equipment and be designated Disulfurizer Tender (plastic-synth.). May blend cellulose xanthate and caustic soda and be designated Tank Worker (plastic-synth.).
GOE: 06.04.13 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

550.685-038 COLOR-PASTE MIXER (textile)
Tends machine to mix color paste for use in printing textiles: Measures out specified amounts of base colors and thickener, using calibrated ladles and spoons. Mixes ingredients in tub, using power mixer, and observes mixture to determine when ingredients have combined. Smears sample of printing paste on cloth and submits sample smear to COLORIST (profess. & kin.) for comparison with color standard. Adds base colors to mixture when advised by COLORIST (profess. & kin.). May strain color paste through cloth to remove lumps. May convey tubs of color to printing machine, using handtruck.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

550.685-042 COMPOUND FINISHER (chemical)
Tends mixing machine to finish mixing of matchhead compound to produce mixture of specified viscosity: Lifts kettles of compounds from cart onto mixer with hoist. Starts mixer and pours dye solution into compound. Sets thermostat or opens valve to admit steam into jacket around kettle to heat compound if specified, and verifies temperature with thermometer. Fills graduated dipper with compound and times flow of compound from dipper with stopwatch to test viscosity. Adds specified ingredient according to test results until viscosity is correct.

GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

550.685-046 COMPOUNDER (pharmaceut.; soap & rel.)
Tends mixer tanks and compounding kettle that mix and compound tinctures, perfumery solutions, color solutions, essential oils, and aromatic synthetics for use in manufacture of creams, perfumes, soaps, and powders: Weighs out specified types and quantities of liquid or solid ingredients in balance scale or scale tank, according to formula. Drains solution from scale tank into strainer pan to filter foreign particles. Dumps or pumps solution into compounding kettle that automatically washes it with alcohol to remove odors or adjusts valves and observes thermostat to heat solution as specified. Pumps solution into mixer tank that blends it for specified time, and through filter press for further purification. Drains sample for laboratory analysis. May test solution for color. May grind ingredients, such as castor bags or vanilla beans, using machine or hand grinder.
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

550.685-050 COMPOUNDER (chemical)
Tends machines that grind and mix ingredients, such as glue, dyes, water, chemicals, and resins, according to specifications, to produce compounds used in heads and striking surfaces of kitchen, penny, and book matches: Dumps chemicals, dyes, and other ingredients into sifting and grinding machines and starts machines to sift and grind ingredients, according to specifications. Dumps or pours specified quantities of ingredients into mixing machine and starts machine to mix ingredients, according to specifications. Measures viscosity of ingredients, using viscometer. May submit sample to laboratory for testing.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

550.685-054 CRUTCHER (soap & rel.)
Tends machines that mix specified quantities and types of liquid, powder, and paste ingredients to form slurry for processing into soap products, such as bars, flakes, chips, and granules: Pulls slide from discharge chute of hopper to admit preweighed dry materials into tank, or shovels preweighed solid ingredients into tank. Opens valves to add specified amount of water, paste, or steam. Starts agitator to mix materials for prescribed period of time. Observes gauge and adjusts valves to maintain specified temperature. Weighs and dumps specified additional ingredients or adjusts scale tank and pumps in additional ingredients. Turns valve to pump completed batch to booster tank, or shovels completed batch into wheelbarrow. Draws sample of slurry for laboratory analysis. Records number of batches mixed.
GOE: 06.04.19 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

550.685-058 DUSTLESS OPERATOR (chemical)
Tends machine that mixes powdered carbon black with water or binding agents in rotating drum to form pellets: Starts machine and turns valves to admit and regulate flow of water or binding agents into mixing drum. Examines and feels samples of product to verify that pellet size and moisture content meet specified standards. Opens inspection ports and observes conveyor system to detect jamming.
GOE: 06.04.19 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

550.685-062 GLUE MIXER (any industry)
Tends agitator tanks that mix ingredients to produce chemical compounds, such as sealants, adhesives, fillers, and linoleum paste: Weighs and measures ingredients, such as casein, clay, flour, glue powder and gelatin, lignin, resins, and liquid catalysts or water, following prescribed formula, and dumps, pours, pumps, or scoops ingredients into machine, tank, or kettle. Pushes button to start agitators that blend ingredients. Observes mixing process and adds ingredients according to specifications. Manipulates controls to drain mixture from tanks or kettles. May draw product sample for laboratory analysis. May cook mixture, using steam-jacketed kettle. May manually mix compounds. May mark identifying information on containers. May record amount of product mixed. May be designated according to product mixed as Sealant Mixer (aircraft mfg.).
GOE: 06.04.19 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 87

550.685-066 GROUND MIXER (chemical)
Tends agitator and auxiliary equipment to mix pigments according to specifications for use in ground coating and coloring on wallpaper: Measures and mixes ingredients in electric agitator to make sizing compounds. Dumps bags of powdered clay into mixing vat, and turns valves to add water. Starts pump to transport specified quantity of sizing compound from drum into mixing vat, and starts agitator. Loosens lumps of clay from sides of vat during mixing process, using paddle. Moves drums of base solution about work area, using handtruck.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

550.685-070 INSECTICIDE MIXER (chemical)
Tends machine and equipment that mix liquid and dry ingredients according to formula to produce insecticides, pesticides, and fungicides: Weighs, measures, or turns valves to admit specified quantities and type of ingredients into mixer. Starts mixer to blend ingredients. Turns valve, pulls lever, or presses button to transfer mixture to storage tank or filling machine. Records quantity and type of ingredients mixed. May draw sample of product for laboratory testing.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

550.685-074 MIXER I (tex. prod., nec)
Tends agitator tanks, portable mixing machines, and related equipment to produce compounds for coating and waterproofing fabrics: Measures and
weighs materials, such as oils, pigments, plasticizers, resins, stabilizers, fil
color concentrate, and water according to formula. Trucks drums of ingredi
to mixers and dumps them into mixing chamber, using hoist, tilt, or by ha
Starts mixer to blend ingredients. Drains ingredients into storage tanks, buck
or drums. Scrapes and cleans mixers, using hand scraper and solvents. M
pump specified amounts of liquid plasticizer into supply containers or mix
chamber, as directed.
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L1 SVP: 3 DLU: 77

550.685-078 MIXER (paint & varnish) alternate titles: batch mix
blender; dispersion mixer
Tends mixing machines that blend solid and liquid ingredients to make pr
ucts, such as paints, lacquers, putty, paint pigments, and binders, following
mula: Turns valves or sets pump meters to admit specified amounts of liqu
such as oils, solvents, and water into mixer. Weighs and dumps specif
amounts of dry ingredients, such as plastic flash, color concentrates, and res
into mixer, as indicated on batch ticket, or dumps preweighed ingredients i
tank. Pushes or pulls tank to dispersion mixing machine. Depresses pedal
lower mixing blades into tank and presses button to start blades revolving
mix and disperse ingredients. Turns valves to drain batch through hoses i
pebble or ball mill or into holding tank. Draws sample from batch for l
oratory test and adds ingredients to mixture as specified by laboratory. M
clean equipment, using rags, solvent, and scraper. May be designated accord
to product mixed as Glass Enamel Mixer (paint & varnish); Lacquer Blen
(paint & varnish); Paint Maker (paint & varnish); Paste Mixer (paint & v
nish); Pigment Mixer (paint & varnish); Putty Maker (paint & varnish).
GOE: 06.04.11 STRENGTH: H GED: R3 M1 L2 SVP: 3 DLU: 78

550.685-082 MIXER OPERATOR (chemical; electron. comp.) alternate
tles: blender
Tends mixing machine that blends liquid and solid materials into chem
solutions and slurries used in manufacturing various products: Transfers ma
rials to work area, using handtruck or forklift. Weighs materials according
formula or proportion tables, dumps materials into mixing chamber, and sta
machine to mix materials. Examines or feels mixture, or observes gauges
timer to determine when mixing is completed, and stops machine. Dumps
shovels material from mixing chamber onto conveyor or into containers
storage, shipment, or further processing, or turns valves or starts pumps
transfer mixed materials to designated processing areas. May test sample to
sure material meets specifications. May tend auxiliary equipment, such
grinders or driers, to prepare ingredients or process product.
GOE: 06.04.11 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 86

550.685-086 MIXER, FOAM RUBBER (rubber goods)
Tends machine that mixes foam rubber particles with liquid latex and d
charges mixture into molds to make products, such as cushions and mattress
Opens storage bin chute to transfer ground particles to barrel. Weighs barr
adds or removes foam rubber particles to obtain specified weight, and dum
material into mixing machine. Weighs and pours specified amount of latex i
machine and starts machine that mixes ingredients. Places mold under dischar
spout of machine and fills mold with mixture. May grind foam rubber, usi
powered grinding machine. May tend hydraulic press that cures filled molds
form cushions and mattresses [MOLDER, FOAM RUBBER (rubber goods)].
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

550.685-090 MIXING-MACHINE TENDER (chemical; pharmaceut.)
Tends mixing machines, agitator tanks, kettles, roller mills, and relat
equipment to compound and process ingredients according to formula to ma
powdered, liquid, paste, or cream chemical products: Weighs ingredients a
dumps, pours, pumps, or shovels them into machine, tank, or kettle. Turns co
trols to achieve specified temperature. Starts agitator to mix ingredients f
specified time. Adds ingredients as specified during mixing cycle. Tests sol
tion for specific gravity, viscosity, or acidity, using testing devices, or subm
sample to laboratory. May cook mixture, using steam-jacketed kettle. M
pump mixture through homogenizer to prepare emulsions or through filter pre
to remove impurities. May connect waterlines between deionizer, filter pre
and vapor and storage tanks to purify water for use in products. May dra
product into other machine units or into storage tanks. May be designated a
cording to type of product mixed as Chemical Mixer (pharmaceut.); Crea
Maker (pharmaceut.); Dental-Cream Maker (pharmaceut.); Dye Mixer (phot
appar.); Liquid Compounder (pharmaceut.) II; Ointment-Mill Tend
(pharmaceut.). May be designated: Perfume And Toilet Water Mak
(pharmaceut.); Powder Compounder (pharmaceut.); Powder Mixer (chemica
Roller-Mill Tender (pharmaceut.); Rouge Mixer (pharmaceut.).
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

550.685-094 PEARL-GLUE OPERATOR (chemical)
Tends equipment that converts liquor glue into pearl glue (pearl-like bits
Opens valve to fill tank with gasoline. Starts refrigerant-circulating pumps
cool gasoline to required temperature. Pumps liquor glue through pearler-hea
tubes that deposit drops of glue into refrigerated gasoline to form pearl glue.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

550.685-098 POWERHOUSE HELPER (chemical)
Tends mixing machine to blend phosphate, soda ash, lime, and other wate
conditioning agents for use as binding agent for making carbon black: Star
pumps to transport ingredients into blending tanks. Starts mixing machine t
blend ingredients. Starts pumps to transport mixture to storage tanks feedin

furnace boilers of carbon manufacturing plant. Keeps log of gauge readings, such as water temperature and level in boilers and storage tanks.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

550.685-102 RUBBER-MILL TENDER (plastic-synth.; rubber goods; rubber reclaim.; rubber tire)
Tends rubber milling machine to mix, blend, knead, or refine scrap, crude, synthetic, or precompounded rubber for further processing: Starts machine and turns valves on steam and cold waterlines to regulate temperature of rolls. Lays rubber slabs between rolls of mill. Cuts stock with knife, rolls it into bundle, and feeds stock back into mill until rubber reaches specified consistency. Sets adjustable knives against mill roll to cut continuous strip as rubber emerges from mill and feeds strip onto conveyor that carries strip to calenders or extruders. Adjusts clearance between mill rolls, using wrench. May wash or crack crude rubber by passing it through corrugated mill rolls and water spray. May weigh and measure liquid and dry chemicals and add them to rubber during kneading process. May be designated according to specialized operation performed as Mill Tender, Break-Down (rubber goods; rubber tire); Mill Tender, Warm-Up (rubber goods; rubber tire); Mill Tender, Washing (rubber goods; rubber tire); Mix-Mill Tender (rubber goods; rubber tire); Slab-Off Mill Tender (rubber goods; rubber tire).
GOE: 06.04.13 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

550.685-106 SEASONING MIXER (chemical)
Tends equipment that mixes various pigments, lacquers, or chemicals used to color, coat, clean, or soften hides or skins: Pours specified ingredients into rotary mixing drum or mixing vat, according to formula. Moves lever to rotate drum, or lowers automatic mixing paddle into vat and moves switch to rotate paddle. Opens door of drum or tips vat to pour mixture into buckets. Delivers buckets to other workers, using handtruck. May be designated according to product mixed as Degreasing-Solution Mixer (chemical); Finishing-Compound Mixer (chemical); Pigment And Lacquer Mixer (chemical).
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

550.685-110 SWEEPING-COMPOUND BLENDER (chemical)
Tends machine that mixes ingredients, such as dye, oil, sand, sawdust, and water to make sweeping compound: Measures or weighs out ingredients according to formula. Dumps or pours ingredients into mixer. Starts agitator or tumbler and mixes ingredients for specified time. Turns valve to drain mixture into barrels. Weighs barrel on floor scale to determine weight. May clean mixers, scales, kettles, and work area, using rags and solvent. May pack and seal products in wooden cases and label cases and barrels.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

550.685-114 TETRYL-DISSOLVER OPERATOR (chemical)
Tends equipment to dissolve crude tetryl in heated benzene for manufacture of explosives: Starts pump to transport benzene in weighing tank and turns valve to transfer it to dissolving tank. Admits steam to outer jacket of dissolving tank to heat solvent. Weighs out raw tetryl on scale and scoops it into tank with heated solvent. Starts agitator to mix solution for prescribed time. Turns valve to transfer solution to crystallizer for recovery of solvent.
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

550.685-118 TUMBLER OPERATOR (chemical)
Tends tumbling machine that blends ingredients of pyrotechnic powder for use in signal flares: Pours roughly mixed ingredients into tumbler. Closes door of tumbler, and starts tumbling machine to blend ingredients for specified period of time. Scoops blended mixture into container.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

550.685-122 WEIGHER AND MIXER (chemical)
Tends machines that mix ingredients, such as pigments, resins, varnishes, solvents, and oils to produce ink or ink paste: Reads specifications to determine type and quantity of ingredients to be mixed. Starts pumps to tranport preweighed liquid ingredients from storage tanks into containers. Weighs specified amounts of pigments and adds them to containers. Dumps contents of containers into rotary mixer, using hoist, or moves container onto bed of mixer and turns wheel that lowers mixing blades into containers. Starts motor to mix ingredients for predetermined time. Draws sample or scoops sample of solution for laboratory analysis. Adds ingredients as directed by laboratory, or extends mixing period to attain prescribed consistency. Scoops or pumps ink or ink paste to holding tanks or into containers. May heat solvents in kettle or with steam coil to remove chill before adding pigments.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

550.685-126 WET MIXER (chemical)
Tends machine that mixes ground phosphate with sulfuric acid to produce superphosphate: Pulls levers to open storage tank or hopper and admit materials into weighing hopper of machine. Pulls lever to open bottom of weighing hopper and dump materials into mixer. Tests sulfuric acid to determine if strength and temperature meet specifications, using hydrometer and thermometer. Starts mixer and blends materials for specified time. Pulls lever to dump mixed materials into storage pit. Records weight of materials mixed.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

550.685-130 MATERIAL MIXER (plastic prod.)
Tends drum-tumbling machine that mixes ingredients, such as resins, color pigments, and additives, for use in fabrication of plastic cosmetic packaging: Lines drum with plastic bag. Presses control to activate hopper that automatically fills drum with specified ingredients, or dumps measured ingredients into drum according to formula, using hand scoop and scale. Conveys filled drum to tumbling machine, using handtruck. Mounts and secures drum in holding device of machine, turns knob to set timing control, and presses button to actuate drum-tumbling action. Removes drum from machine at end of cycle and conveys drum to specified production machine, using handtruck.
GOE: 06.04.13 STRENGTH: V GED: R2 M2 L2 SVP: 2 DLU: 86

550.685-134 MIXING-MACHINE OPERATOR (plastic prod.; plastic-synth.)
Tends machines that mix chemical ingredients, such as resins, plasticizers, solvents, and coloring matter with filler to produce plastics materials: Weighs, measures, and combines ingredients according to formula, and dumps or pours ingredients into mixer. Turns valves to pump liquid ingredients into mixer. Starts agitator to mix batch for specified time. Turns wheel or valves, opens gates, or presses switch to tilt mixer to discharge compound into containers, storage tanks, or hoses. Posts operating information in log. May wash equipment, using hose and brushes. May turn steam and water valves and observe gauges to regulate temperature of mix. May dry material in atmospheric drier. May be designated according to operation performed as Blender (plastic prod.; plastic-synth.); Color Mixer (plastic prod.; plastic-synth.); Resin Compounder, Batch Lot (plastic-synth.); Solution Mixer (plastic-synth.).
GOE: 06.04.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 78

550.686-010 BATCH TRUCKER (rubber reclaim.)
Feeds specified quantities and types of ground devulcanized scrap rubber into mix mill to prepare batch for processing: Shovels mixture into monorail bucket or pushtruck, and dumps mixture into designated chute or onto feed conveyor of mix mill. Records batches produced. May drive scooptruck to transport mixture. May add specified pigments to mixture when blending.
GOE: 06.04.13 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

550.686-014 COMPOUND FILLER (chemical)
Feeds supply of compounds and dope in tanks at dip conveyors for forming and treating heads of kitchen, penny, and book matches: Dips compounds from kettle into respective feed containers that automatically maintain tank level. Mixes specified solution of glyoxal and water, that hardens formed matchhead, and pours solution into dope tank. Removes and replaces dirty screens in dip tanks. Verifies level and temperature of paraffin in dip tanks. Pushes kettle trucks to and from compound room and dip area.
GOE: 06.04.11 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

550.686-018 CRUTCHER HELPER (soap & rel.)
Weighs and dumps specified dry materials into feeder hopper of crutcher equipment, that forms slurry for processing it to soap powder: Opens valves of supply tanks and waterlines to add prescribed liquid and paste. Mixes dye according to specifications and dumps dye into batch. Changes and cleans strainers. Sweeps and cleans work area.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

550.686-022 GLAZING OPERATOR, BLACK POWDER (chemical)
Feeds grain powder, graphite, and other materials into glazing barrels: Dumps specified amounts of graphite, grain powder, and other ingredients into mechanically rotated glazing barrels that smooth out and lubricate powder. Opens barrel door to discharge contents into containers. May time rotation (glazing) period, using watch.
GOE: 06.04.19 STRENGTH: H GED: R3 M1 L1 SVP: 4 DLU: 77

550.686-026 MIXER HELPER (build. mat., nec)
Dumps asphalt resin chunks into heating kettle to liquefy resin used as binding sealer in asphalt shingles. Chops resin into pieces, using ax, and feeds pieces into kettle. Lifts screen on return flow trough and removes foreign matter from screen by hand.
GOE: 06.04.19 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

550.686-030 MIXING-MACHINE FEEDER (chemical)
Feeds dry chemical ingredients used in manufacture of fertilizer and insecticides into mixing machine. Empties hoppers or sacks of specified ingredients into machine or elevator bucket, using forklift truck or by hand. May start elevator to empty buckets into machine.
GOE: 06.04.11 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

550.686-034 MOTTLER-MACHINE FEEDER (fabrication, nec)
Dumps color mix into hoppers of designated color-depositing machines: Scoops mix from bins and dumps it into hopper. Adds specified ingredients as directed. Breaks up lumpy color in feedlines, using long-handled stick. Cleans roller blades, using scraper.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

550.686-038 ROOF-CEMENT-AND-PAINT-MAKER HELPER (build. mat., nec; nonmet. min.)
Assists ROOF-CEMENT-AND-PAINT MAKER (nonmet. min.) in making roof cement: Weighs sacks filled with materials to make roof cement and paint and dumps contents from sacks onto conveyor leading to mixing machine. Places cans under spigot of mixing machine. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

550.687-010 CHEMICAL-COMPOUNDER HELPER (chemical)
Shovels specified chemicals into tank of heated water to dissolve chemicals preparatory to charging mixing kettle that produces optical brightener (organic

white dye) for soaps and fabrics. Moves drums of chemicals to work area, using handtruck. May read work orders to determine type and amount of chemicals to add to kettle. May be designated according to material produced as Optical-Brightener-Maker Helper (chemical).
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

550.687-014 COLOR STRAINER (textile)
Assists COLOR-PASTE MIXER (textile) in mixing color for use in printing textiles: Strains mixed colors through vacuum or other straining device to remove lumps and foreign matter. Carries colors to and from mixing area. Cleans working area and mixing equipment, using water hose. May mix colors. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.16 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

550.687-018 DYE-WEIGHER HELPER (any industry)
Assists DYE WEIGHER (any industry) in mixing dyes and chemicals for use in dyeing textile yarns and fabrics: Opens steam valve to heat dye solution. Stirs solution with paddle to dissolve dye. Dumps contents of mixing pails into or turns valve to transfer dye solution to supply tanks in dyeing department in response to light signal or to request over speaker system. Moves barrels of dye and chemicals to dye room, using handtruck. Cleans mixing tanks and work area, using waterhose. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.34 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

551 FILTERING, STRAINING, AND SEPARATING OCCUPATIONS

This group includes occupations concerned with separating desirable materials by means of filtering, precipitating, straining, sifting, squeezing, centrifugal force, or agitating devices.

551.130-010 SUPERVISOR, PROCESSING (chemical)
Supervises and coordinates activities of workers engaged in conveying, washing, screening, packaging, or storing reclaimed or stockpiled salt: Reads production schedule to verify type and tonnage of salt to be processed. Inspects conveyor system and equipment, such as vibrating feeder screens, conveyor junction feeders, and automatic conveyor scales, for evidence of malfunctioning. Trains workers in operation of equipment. Coordinates flow of salt to processing stations to prevent production delays. Maintains production records and prepares reports on department activities. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

551.362-010 PURIFICATION OPERATOR II (chemical) alternate titles: gas-scrubber operator
Controls gas-scrubbing and related equipment to remove impurities from gases: Observes temperature, flow, pressure gauges, and liquid-level indicators and moves controls to effect operating equilibrium in equipment, according to plant procedure and correlation of instrument readings. Observes gas-scrubbing fluid through sight glasses to determine process efficiency, indicated by color and flow rate of fluid. Turns valves to maintain brine in brine scrubber at specified strength and regulate temperature of hot water in scrubber jacket, according to indicated efficiency of scrubbing fluid. Inspects pumps, motors, valves, and related equipment and replaces packing in column scrubbers and nitrogen-drying columns at specified intervals with acid, calcium chloride, or brine. Draws samples of gases and fluids for laboratory analysis. Maintains log of gauge readings and results of laboratory analyses. Directs activities of PURIFICATION-OPERATOR HELPER (chemical) 551.465-010.
GOE: 06.02.11 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

551.365-010 STRAINER TENDER (rubber reclaim.) alternate titles: fabric-separator operator; strainer-mill operator; tuber operator
Tends machines that screen foreign material from ground, devulcanized scrap rubber: Opens chute on feed conveyors or shovels scrap rubber into hopper of strainer. Starts machine that forces scrap rubber through strainer screen. Regulates speed of machine and conveyors to prevent jamming of stock. Discharges strained scrap rubber onto conveyors for transfer to refining mills, or onto handtrucks for transfer to storage. Feels strainer, and opens water valves to prevent overheating of machine and scorching of rubber. Observes rubber for color and appearance and feels strained rubber to ensure that foreign material is removed. Cleans clogged strainer screens, using scraper and solvent, or replaces clogged and worn strainer screens, using handtools. Signals drying and milling department workers to maintain specified flow of scrap rubber through strainers. May dump bags of soapstone in discharge chute to facilitate movement of stock through screen conveyor. May tend magnetic device to facilitate removal of metal from rubber. May fill containers with screened rubber to specified weight and keep record of production.
GOE: 06.02.07 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

551.382-010 ABSORPTION OPERATOR (chemical) alternate titles: saturator
Controls equipment that absorbs gases and liquids into water or other solvents to produce chemicals, such as hydrochloric acid or ammonium hydroxide: Starts pumps, turns valves, and observes flowmeters to control concentration, flow, temperature, and quantity of coolant, gas, liquid, and absorbing liquor through cooling and absorption towers. Turns valves to regulate feed of solut produced and rate of steam to purge boilers and condensers to separate impu ties from solution and obtain product of designated strength and specific gr ity. Draws sample and tests specific quality and acidity, using hydrometer a pH meter, or submits sample to laboratory for analysis. Pumps solution betw equipment and storage tanks or tank cars. Maintains log of instrument readin test results, and shift production. May be designated according to solution p duced as Ammonium-Hydroxide Operator (chemical); Aqua-Ammonia Opera (chemical); Hydrochloric-Acid Operator (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

551.465-010 PURIFICATION-OPERATOR HELPER (chemical)
Tends gas scrubbing and related equipment that removes impurities fr gases, as directed by PURIFICATION OPERATOR (chemical) II: Loads br saturators and nitrogen-drying columns with lump calcium chloride. Mi hydrosulfate solutions used in process, according to proportion chart or oral rections. Observes gauges to determine gas pressures throughout system, co putes and records drops in pressure, and ascertains from data obtained optim time to shut down and clean equipment for efficient operation. Draws samp of acids, brine, and gases from equipment units for laboratory analysis and termines specific gravity of brine, using hydrometer. Drains liquid from nit gen driers. Assists operator in maintaining operating log of gauge and inst ment readings.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

551.485-010 WATER-TREATMENT-PLANT OPERATOR (chemical)
Tends water plant equipment that scrubs and purifies gases from smelt furnaces: Starts pumps and fans in scrubber towers and turns valves to regul flow of water through nozzles. Pulls lever to open car bottom to unload li from hopper cars into storage tanks. Knocks on bottom of hopper with pry or uses portable vibrator to loosen lime remaining in car. Dumps specif number of sacks of sulfate, hydroxide, and fluoride into mixer machines. Sta conveyors to transport mixed chemicals and lime to reactor tanks that make agent solution. Observes control panel, records readings, and calculates solut temperatures, scrubber fan loads, and flow of treatment solutions, using cha and graphs. Changes basket screens in reactor tanks, using chain hoist, a cleans screens with water or steam. Collects samples of treatment solutions a sludge for laboratory analysis. Measures acidity or alkalinity of clarifier ov flow to determine efficiency of impurity recovery, using pH meter.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

551.562-010 FILTRATION OPERATOR, POLYETHYLENE CAT LYST (chemical)
Controls rotary-leaf filters and such auxiliary equipment as centrifug pumps, compressors, heat exchangers, and conveyors, to remove process ca lyst from polyethylene products: Starts pumps, centrifuges, and compresso Observes gauges and chart recorders; turns valves; and sets automatic cont instruments to regulate temperatures, pressures, flow-rates, and liquid lev within plant specifications, and to transfer materials between units to ensure ficient removal of catalyst. Directs other workers engaged in tending pum compressors, and centrifuges and in making manual adjustments to equipm to maintain required process conditions. Moves manual and automatic contr to switch filters into and out of service for replacement of diatomaceous-ea coating. Records instrument readings and laboratory test results in operat log. Inspects equipment for malfunctions, wear, and leaks, reporting need repairs to maintenance personnel.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

551.582-010 HYDRAULIC-STRAINER OPERATOR (plastic-synth.) ternate titles: filter operator
Operates hydraulic filter machine to remove foreign matter from plastics terial: Cuts plastics dough into slabs, using knife, or rolls material into lu and packs it into cylinder. Selects and installs wire and cloth strainers and heads in machine, according to type and form of material, using handtools. justs controls of hydraulic ram, according to pressure gauge reading, and sta machine to force material through strainers. Cleans strainers, die head, and chine cylinder, using brushes, scrapers, and solvents. Records amounts and ty of dough strained.
GOE: 06.02.13 STRENGTH: M GED: R3 M1 L2 SVP: 5 DLU: 77

551.585-010 FILTER-TANK OPERATOR (chemical)
Tends filter that cleans detergent used in toothpaste: Starts pumps that tra fer toothpaste-detergent slurry to filter tank, and turns valve on vacuum l to draw liquid from slurry. Turns valves on feed lines to wash residual too paste detergent with specified solvent fluid. Shovels caked detergent into dr and clamps on lid. Weighs drum and records weight. Moves drum to stora area, using handtruck. Starts pumps to force filtrate liquid down through fil to stills to recover solvent. May record production data in log.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

551.585-014 MERCURY PURIFIER (chemical)
Tends continuous-process equipment that purifies mercury recovered fr electrolytic cells: Turns compressed air and water valves to start flow of m cury through acid bath and purification towers that remove contaminants fr mercury. Drains purified mercury into storage tank. Refills purifying tow with mercurous nitrate purifying agent and verifies specific gravity of nitra using hydrometer, to ensure efficient purification. Cleans and flushes tow using water hose. Records weight of mercury purified during shift.

GOE: 06.04.11 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 77

551.585-018 PAN HELPER (chemical)

Tends equipment, such as filters, settlers, and thickeners, to assist in concentrating chemical solution: Turns valves and starts pumps to start flow of liquids from storage tanks through series of pans. Dumps sacks of chemicals into processing units. Patrols area to detect leaks and malfunctioning of equipment. Records data, such as temperature and pressure readings, and monitors gauges and recording charts to ensure safe operating conditions. Draws sample of product and tests for specific gravity, using hydrometer. Opens valves to drain and flush salt accumulations from pans and lines. Repacks pumps and valves and repairs equipment by adjusting or replacing parts, using handtools. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: H GED: R3 M1 L2 SVP: 4 DLU: 77

551.585-022 ROTARY-CUTTER OPERATOR (rubber goods)

Tends machine that pulverizes scrap fabric into flock (powder): Cuts wire from bale of scrap, using wirecutters. Starts machine and dumps and spreads scrap on conveyor that moves scrap to rotary knives turning within fixed knives that pulverize scrap. Clamps sack over blower pipe and opens valve to fill sack with flock. Pushes plunger that forces pneumatic tamper into sack to compress flock. Closes top and sews filled sack, using needle and twine. Weighs filled sack and records weight on production record and tag.
GOE: 06.04.05 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

551.665-010 NAPHTHALENE OPERATOR (steel & rel.)

Tends equipment that separates naphthalene from chemical drain oil used to wash coke-oven gas or tar distillate: Starts pumps to remove drain oil from scrubbing tower to collecting tank where naphthalene settles and crystallizes as oil cools. Opens drain valves or starts pumps to remove oil from pans to storage tanks. Dumps crystals into centrifuge to remove remaining oil [CENTRIFUGAL-DRIER OPERATOR (chemical)]. Dumps or shovels crystallized naphthalene into steam-heated tank to melt and further purify crystals. Draws sample from melting tank for laboratory analysis. Starts pumps to transfer naphthalene into storage tanks or railroad tank cars. May be designated according to work performed as Drier Tender Naphthalene (steel & rel.).
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

551.666-010 PITCH WORKER (optical goods)

Dumps salvaged pitch into heated filtering kettle that filters pitch for reuse in blocking lens blanks: Opens valve to drain filtered pitch into cooling troughs and breaks up solidified pitch with hand tamper. Loads pitch into containers and delivers to BLOCKING-MACHINE TENDER (optical goods).
GOE: 06.04.19 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

551.682-010 BENZENE-WASHER OPERATOR (chemical; steel & rel.) alternate titles: acid-wash operator; agitator operator; benzene operator; benzol operator

Controls agitator tank to wash (mix) benzol, benzene, toluene, and xylene with sulfuric acid and caustic soda to remove impurities: Turns valves and starts pumps to charge agitator vessel with specified amount of benzol or derivatives. Drains measured quantity of acid into vessel and starts agitator to mix contents for specified time. Stops agitator to allow acid and sludge to settle. Draws sample of washed product for laboratory colorimetry test to determine need for further washing. Opens valve, using wrench, to drain excess acid and sludge, adds caustic soda solution to neutralize remaining acid, and measures alkalinity, using standard titration test. Adds water, agitates mixture to wash out traces of caustic, and drains off water after contents have settled. Pumps washed benzol or derivatives into storage tank. Turns valves to admit steam to sludge kettle, solidifying sludge. Lifts kettle cover, using chain hoist, and removes sludge from kettle. May distill washed benzol in batch still [BATCH-STILL OPERATOR (chemical) I]. May remove impurities from crude ethylbenzene by adding lime and water and agitating mixture.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

551.685-010 BAND TUMBLER (rubber goods)

Tends tumbler that removes water from rubberbands: Carries tote box of bands from band-cutting machine and dumps bands into tumbler. Starts mechanism that rotates bands for specified time to remove moisture from bands. Removes and carries bands to bundling and boxing machines.
GOE: 06.04.07 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

551.685-014 BOILING-TUB OPERATOR (chemical) alternate titles: washing-tub operator

Tends tanks in which crude tetryl explosive or nitrocellulose is boiled and washed to remove acids and impurities: Admits batch of crude tetryl slurry to boiling tank. Starts tank agitators and turns valve to admit steam to tank jacket to boil slurry for specified time. Pumps off water after material has settled. Pumps fresh water through tank to wash tetryl and flush away impurities. When boiling nitrocellulose, admits acid to tub and boils contents for specified time, adds neutralizing agent, and repeats process until all nitrocellulose impurities are removed. May test acidity of solution, using hydrometer or titration test. When boiling tetryl, is designated Tetryl-Boiling-Tub Operator (chemical).
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-018 BONE-COOKING OPERATOR (chemical)

Tends steam-heated vats that extract gelatin from crushed bone: Turns valve to introduce steam that heats vat filled with crushed bone. Adds water to vat and dumps in specified amounts of ingredients that hasten extraction of gelatin. Drains vat and signals other workers to remove bone residue from vat.
GOE: 06.04.19 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

551.685-022 CATALYST-RECOVERY OPERATOR (chemical)

Tends filter presses, evaporators, dissolvers, and precipitators that recover and recondition catalysts used in manufacturing styrene and edible oils: Starts pump and opens feed and discharge valves to transfer used catalyst from processing equipment into tank for reconditioning. Observes meters and gauges, and turns valves to maintain prescribed rate of flow, temperature, and pressure of compressed hydrogen, steam, and acid in filter or reconditioning tank. Weighs and adds specified amounts of neutralizer and filter aid. Pumps batch to filter press to change catalyst into cake form for recovery. Turns valves to regulate feed and temperature of filtrate in evaporating tank for recovery of remaining catalyst. Removes catalyst residue from tank and filter plates, using shovel and scraper.
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

551.685-026 CENTRIFUGAL-DRIER OPERATOR (chemical) alternate titles: centrifuge operator

Tends centrifugal drier that removes water or other liquids from slurries: Inserts filter cloth and screen in basket of centrifugal drum. Lowers bell-shaped cover over outlet in bottom of basket if unit is bottom-discharge type and shovels, pours, or pumps slurry into basket. Closes lid if unit is top-discharge type. Starts basket revolving and moves control to regulate speed, according to specifications. Lifts bell, lowers blade to cut crystallized cake from walls of basket, and pushes centrifuged mass through outlet into containers or onto conveyor, using paddle. May release trap door, start pumps, or shovel material from basket to unload drier. May turn steam or fuel valves to heat drier basket or drum to maintain centrifuged material at specified temperature while drying. When drying and discharging salt, may be designated Salt Cutter (chemical).
GOE: 06.04.11 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

551.685-030 CENTRIFUGE OPERATOR (soap & rel.) alternate titles: salt operator

Tends centrifuge and auxiliary equipment that washes and dries slurry solution, formed during making of soap, to recover glycerin-free salt: Tests sample of slurry from decantation tank for salt content and to determine rate of flow of solution into centrifuge hopper, using testing instruments, such as hydrometer. Turns valve to run slurry into centrifuge and presses switch to start machine. Observes gauges to verify rate of flow and adjusts thermostat to regulate temperature of water in centrifuge. Opens valves to fill drums or silo with salt flakes. Turns valve to discharge liquid into holding tanks. May dissolve salt in liquid to make brine and perform specific gravity test, using hydrometer.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-034 CENTRIFUGE OPERATOR (paint & varnish)

Tends centrifuge that removes impurities from varnishes and lacquers: Positions filter cloth on supply tank of centrifuge. Starts pump to transfer product from cooling tank, through filter, into containers or supply tank. Starts centrifuge and opens discharge valve to transfer filtered material from centrifuge into portable tank. Adjusts controls to regulate flow of material through lines and tanks. May start pumps to transfer liquids from portable tank to storage tank. Disassembles centrifuge and pump, using handtools and cleans equipment with solvents. Pumps liquids to filter press if further filtration is specified. May be designated according to material filtered as Lacquer Filterer (paint & varnish); Varnish Filterer (paint & varnish) I.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-038 CENTRIFUGE-SEPARATOR OPERATOR (chemical)

Tends centrifuge to separate grease from liquid glue: Admits glue liquor from bone-cooking tank into centrifuge machine and starts machine. Drains grease and glue into separate storage tanks. Disassembles and cleans equipment.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-042 CHILLER OPERATOR (chemical)

Tends chiller and centrifugal drier that crystallize diluted caustic soda solution and remove liquid from crystallized product: Starts pump to transfer caustic soda solution and water into dilution tank and determines specific gravity of diluted solution, using hydrometer. Pumps solution through refrigerating unit and into chiller. Observes consistency of crystallized slurry flowing from chiller to centrifuge, and turns valves to regulate feed rate and maintain slurry at specified consistency. Tends centrifugal drier [DRIER OPERATOR (chemical) III] to remove liquid component of slurry. May turn valve to heat centrifuge unit if machine is so equipped. Inspects feed and outlet pipes of equipment and flushes lines, using hose, to prevent clogging.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

551.685-046 DEHYDRATING-PRESS OPERATOR (chemical; plastic-synth.)

Tends press that removes water from nitrocellulose used in manufacturing smokeless powder and pyroxylin for use in plastics: Pours specified amount of nitrocellulose into bottom cylinder of dehydrating press. Presses button or opens water valve to force plunger down onto bottom cylinder. Pumps alcohol into lower cylinder and through wet nitrocellulose to displace water. Removes cakes of water-free nitrocellulose and places them on handtruck for removal.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

551.685-050 DUST-COLLECTOR OPERATOR (soap & rel.)

Tends equipment, such as scrubbing towers and centrifugal pumps, that recover powder from spray-tower exhaust gas and prevent air pollution: Starts fan

to draw air and accumulated dust from spray tower into scrubbing tower. Starts steam pump to wet powder, causing it to flow down baffle plates to bottom of tower. Opens valve to permit recovered powder to flow into storage tank for reuse. Pumps recovered powder from storage tank to crutcher machine for reprocessing. Records spray-tower exhaust temperatures and gas pressures on chart.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

551.685-054 EXTRACTOR OPERATOR (chemical; oils & grease)
Tends steam pressure tanks that extract grease from cracklings: Adjusts temperature and pressure of tank filled with cracklings. Starts pumps to transfer specified solvent into tank to dissolve cracklings. Opens valve to transfer extracted grease to still. Takes sample of grease from still and inspects for clarity.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-058 EXTRACTOR OPERATOR (pharmaceut.)
Tends equipment that heats and mixes solvent with ground leafy plant to separate products, such as chlorophyll: Weighs specified amount of ground plant matter, such as alfalfa, and dumps it into steam-jacketed tank. Starts pumps to transfer specified amount of solvent into tank. Starts agitator that mixes solvent with plant matter to dissolve usable constituents. Observes thermometer and opens valve to regulate admission of steam to jacket and to maintain tank heat at prescribed temperature. Connects siphon hose and starts vacuum pump to transfer liquid products to collecting barrel, or to other departments for further processing or storage. May record production data in log. Opens tank outlet to dump residue into waste container.
GOE: 06.04.11 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

551.685-062 EXTRACTOR OPERATOR, SOLVENT PROCESS (chemical) alternate titles: solvent-plant operator
Tends solvent extraction equipment that extracts oil from rice bran, soybeans, and cottonseeds: Observes temperature and steam pressure gauges, flowmeters and ammeters, and turns valves or handwheels to regulate temperature and flow of material in equipment within specified limits. Tests samples of material for conformity to plant standards, using scales, moisture meter, and hydrometer, or by titration. Records indicator readings and test results. May clean filter plates of extractor.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-066 EXTRACTOR-AND-WRINGER OPERATOR (chemical)
Tends equipment that extracts salicylic acid from sodium salicylate solution by precipitation and dries salicylic acid by centrifugal force: Opens valves to pump sodium salicylate solution and required amount of sulfuric acid into extractor columns that absorb phenol from solution and cause precipitation of salicylic acid crystals. Opens steam valves to heat extractors to specified temperature to increase rate of precipitation of salicylic acid. Pumps off solution of sulfuric acid and phenol, and pumps slurry of salicylic acid through cooler to centrifugal drier. Tends centrifugal drier that forces out water to dry salicylic acid. Removes salicylic acid from drier and places acid into containers, using scraper and shovel.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-070 FAT-PURIFICATION WORKER (oils & grease) alternate titles: acidulator
Tends acidulation tanks and auxiliary equipment that separate undesirable compounds from oils: Turns valves to fill tanks with basic materials and to admit prescribed amounts of sulfuric acid and caustic. Starts agitator that mixes and separates ingredients. Starts pumps or opens drain valve to transfer separated material into storage tanks. May draw sample to test for pH volume, using titration test.
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

551.685-074 FILTER HELPER (chemical)
Tends filter that removes excess water from activated carbon slurry, preparatory to drying, for variety of industrial and consumer applications: Moves lever to transfer carbon slurry from discharge chute onto revolving filter cloth. Raises and lowers spreader gate to spread carbon uniformly over surface of filter cloth. Dumps bags of processed carbon onto conveyor leading to shipping or storage area. Monitors vacuum gauge on filter and observes color of wash water to detect leaks in cloth. Scrapes carbon from surface of cloth, using wood paddle, to examine for leaks and other damage or wear. Flushes filter cloth with water hose preparatory to changing cloths.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-078 FILTER OPERATOR (any industry) alternate titles: sludge-filter operator; vacuum-filter operator
Tends rotary drum-filters that separate slurries into liquid and filter cake (insoluble material): Couples flexible hose or pipe to vat, starts pump, and turns valves to regulate flow of slurry to filter tanks. Adjusts controls to regulate rotation speed of drums. Turns valve to regulate pressure that forces slurry through filter, separating filter cake from liquid. Observes discharge to ensure that scrapers are removing filter cake from drum. May tend thickeners, washing sprays, settlers, or related equipment. May draw sample for laboratory analysis. May be known according to trade name of machine.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-082 FILTER-PRESS OPERATOR (any industry)
Tends filter plate press that removes impurities or moisture from slurries and chemical solution: Covers filter plates with cloth, canvas, or paper. Opens valve
to admit liquid ingredients into tank, dumps specified dry ingredients into t
and starts agitator to mix ingredients and form slurry. Starts pump to tran
slurry from mixing tank to filter plate press. Opens pressure valves to f
slurry through plates to remove impurities and moisture. Turns gear whee
release tension of plates at completion of cycle. When filtering to obtain li
product, dislodges solid material from plates and cleans frames, screens,
filters, using scraper, steam, or compressed airhose. When filtering to ob
solid product, cuts mixture from frames with knife and loads materials on
ing trays. May draw samples for laboratory analysis. May be designated acc
ing to product filtered as Pigment Presser (chemical); Plate-and-Frame-F
Operator (any industry); Resin Filterer (paint & varnish); Varnish Filterer (p
& varnish) II.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 81

551.685-086 GREASE-REFINER OPERATOR (oils & grease)
Tends kettle that refines grease according to specifications: Moves leve
admit grease into kettle and opens valve to admit steam into grease to con
boiling. Draws off sample of grease and inspects it for clarity. Starts pum
add required amounts of acid to kettle and boils grease with acid until gre
reaches specified clarity. Closes steam valve and allows water and impuri
to settle to bottom of kettle. Opens valve to drain off water and impurit
Closes drain valve, opens steam valve, and starts pump to fill kettle with wa
Boils mixture for specified amount of time to wash out acid and remaining
purities. Opens drain valve to drain off water and impurities. Pumps grease
storage tanks.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

551.685-090 LEACHER (paper & pulp)
Tends leach tanks that recover soda ash from black ash: Opens valve
admit water or weak liquor (soda ash) solution into leach tanks containing bl
ash. Starts agitators to stir mixture and dissolve soda ash. Withdraws samp
of resultant solution and tests for concentration of soda ash, using hydrome
Starts pump to circulate water or soda ash through leach tanks and into stor
tanks until test samples contain specified concentration of soda ash. Shov
black ash into leach tanks as supply in tank becomes exhausted. Opens dr
to remove insoluble charcoal residue from leach tanks after completion of
covery process.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

551.685-094 LYE TREATER (chemical; soap & rel.)
Tends heated kettle and filter press in which lye is treated with chemic
to remove undesirable properties in glycerine purification process: Starts pu
to transfer premeasured lye into kettle, starts agitator to mix batch, and tu
steam valve to heat kettle to prescribed temperature. Dumps specified amou
of dry chemicals or pumps liquid chemicals into kettle to attain product
specified concentration. Inspects batch sample for clarity and submits samp
laboratory for testing. Regulates chemical concentration of batch, following la
oratory report. Pumps batch through filter press to remove materials precipita
during treatment. Cleans filter press and replaces filter cloths, using handtoo
Records kettle temperature, agitation and treating time, and amount of chem
cals used in process.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

**551.685-098 MERCURY WASHER (chemical) alternate titles: mercu
recoverer**
Tends equipment that recovers and reconditions mercury used in electroly
cells: Sweeps, shovels, and dumps mercury-bearing material onto vibrati
screen that separates mercury. Flushes screen with water, using hose, and drai
off water into settling tank, forming sludge. Ladles contaminated mercury a
sludge into reclaiming kettle and turns valves to admit acid and steam to sep
rate foreign matter from mercury. Drains mercury into flask. May break us
cell anodes to salvage porcelain insulators and copper posts, using hamm
May tend concentrating table to remove mercury residue from scrap materi
for recovery. May weigh flasks of recovered mercury for inventory records.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

**551.685-102 NITROGLYCERIN-SEPARATOR OPERATOR (chemica
alternate titles: separator**
Tends gravity separator to separate nitroglycerin from spent acids, pr
paratory to washing, neutralizing, and processing into explosives: Turns petcoc
to transfer mixture of spent acids and nitroglycerin from batch nitrator to sep
rator. Turns petcock to drain acids from nitroglycerin into trough leading
spent-acid storage. Observes liquid flowing from spigot and moves trough
discharge product into wash tank when color change indicates nitroglycerin
flowing from separator. Observes tank thermometer to detect accumulation
heat that could cause decomposition and explosion and turns valves to regula
heat to prevent explosion or decomposition. May move control to dump tan
contents into water-filled vat if temperature increase indicates explosion ma
be imminent. May wash and neutralize nitroglycerin [NITROGLYCERIN NEU
TRALIZER (chemical)].
GOE: 06.02.18 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

**551.685-106 POACHER OPERATOR (chemical) alternate titles: pulp
screen operator**
Tends tanks that remove acidity, impurities, and inadequately processed ma
terial from nitrocellulose, used in manufacturing chemical and explosive prod
ucts: Pumps nitrocellulose into poacher tubs (tanks) fitted with steam coils o
steampipes. Turns valves to admit water and steam to boil mixture for specifie

time. Tends shaker screen and vacuum filter to wash nitrocellulose. Takes samples to laboratory for analysis. Reads laboratory reports and adjusts blends to meet specifications. Loads blender tubs with measured amount of different types of nitrocellulose to blend products according to specifications.
GOE: 06.02.18 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

551.685-110 PRECIPITATE WASHER (chemical)
Tends filters and related equipment to wash and filter catalytic chemicals used in manufacturing styrene and butadiene: Starts pump to force water into and out of tanks containing precipitate. Titrates sample of wash water to determine when solution is neutralized. Pumps precipitate into slurry tank and wash water to filter press to separate contaminants and recover usable products. Transfers containers of filtered solutions to storage or further processing, using hoist or handtruck.
GOE: 06.04.11 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

551.685-114 PRESS OPERATOR (oils & grease)
Tends hydraulic press to extract grease and tallow from cooked offal, bone, and meat scraps: Opens storage chute gate to start flow of material into press basket or shovels material from vat into basket, and places steel plate over each layer until basket is full. Pulls press-head over basket and pulls lever to raise hydraulic ram that presses grease and tallow from cooked material. Removes crackling cakes and plates from basket and dumps cakes into conveyor chute.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-118 PRESS OPERATOR II (chemical)
Tends hydraulic press that squeezes liquid from crystallized chemical products and compacts material to facilitate melting: Shovels crystallized material into basket of press and positions metal disks in layers throughout material in basket. Moves levers to raise basket against plunger, squeezing liquid from crystals and compressing crystals into round, layer-like blocks. Dumps blocks into heated tank and turns steam valves to melt blocks. Starts pumps to transfer resulting liquid for further processing.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

551.685-122 PURIFICATION OPERATOR I (chemical)
Tends equipment that separates hydrocarbons from coal tar derivatives: Opens valves and starts pump to transfer slurry of hydrocarbons into tank containing organic solvent. Adjusts steam valves to heat solution to specified temperature. Opens water valves to cool solution and promote crystallization of hydrocarbon. Pumps solvent into reclaim tanks, and pumps slurry or hydrocarbon crystals to centrifugal drier. Starts centrifugal drier to remove remaining solvent from hydrocarbon crystals. Discharges hydrocarbon into loading hopper. Records production data in log. May be designated according to specific hydrocarbon processed as Anthracene Operator (chemical). May tend equipment that clarifies creosol derived from coal tar and be designated Clarification Operator (chemical).
GOE: 06.04.12 STRENGTH: M GED: R3 M2 L2 SVP: 2 DLU: 77

551.685-126 SALT WASHER (chemical)
Tends machine that removes dirt and other foreign particles from salt prior to storage or processing into commercial products: Starts conveyor that transfers required quantity of salt into tank of water to prepare saline solution of specified density. Turns valve to admit cleaning solution into machine. Observes operation to detect equipment malfunction and to ensure that salt meets standards of cleanliness. Pumps dirty solution into tank and adds soda ash and lime to cause dirt and foreign matter to precipitate and settle. Draws sample of clean solution for laboratory analysis. May be designated according to stage of treatment at which salt is cleaned as Salt Washer, Harvesting Station (chemical); Salt Washer, Processing Station (chemical).
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

551.685-130 SCREEN OPERATOR (chemical) alternate titles: shaker-screen operator; vibrating-screen operator
Tends vibrating or oscillating shaker screens that separate solids from liquids or sift powdered chemical materials into particles of specified size: Starts action of screens. Turns valves, starts conveyors, or moves chute vanes to control flow of materials to screens according to type of material to be screened. Sifts sample of sized product through laboratory test screens to determine if particle size meets specifications and records results. Changes screen mesh or cloths as directed and repairs equipment, using handtools. Cleans screens, using brushes and liquid cleaning agents. May tend related equipment, such as grinding mills, conveyors, and container-filling units. May examine materials to detect impurities that could contaminate product or damage screens.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

551.685-134 SODA DIALYZER (plastic-synth.)
Tends tanks that recover caustic soda from solutions used in viscose rayon production: Turns valves to admit impure soda solution to outside section of tank and water to inside section, effecting absorption of soda into water by osmosis through cloth membrane separating sections. Turns valves to regulate discharge of resulting pure soda and intake of impure soda, according to level of solution in tank sections.
GOE: 06.04.13 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

551.685-138 STEEPING-PRESS TENDER (plastic-synth.) alternate titles: caustic-room attendant
Tends open tank that impregnates (steeps) sheets of woodpulp with caustic soda for use in rayon production: Positions rectangular sheets of pulp between perforated separator plates, using tongs. Turns valves to admit caustic solution and steam into tank. Drains tank after specified steeping time. Presses button to activate hydraulic ram that presses excess caustic from steeped sheets and discharges sheets into shredder.
GOE: 06.04.18 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

551.685-142 SULFATE DRIER-MACHINE OPERATOR (steel & rel.)
Tends equipment that cleans and dries ammonium sulfate crystals: Pushes crystals from drain table into trough. Opens trough gate to discharge crystals into drier. Starts centrifuge to separate crystals of ammonium sulfate from acid and tar. Washes remaining impurities from crystals with hot water, using hose. Resumes spinning of centrifuge to complete drying. May neutralize acid in sulfate crystals with ammonia liquor.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

551.685-146 TETRYL-SCREEN OPERATOR (chemical)
Tends shaker screen to remove lumps from dried tetryl explosive: Transfers trays of dried tetryl to screening area, using handtruck. Starts motor that activates shaker screen to separate tetryl powder from lumps. Dumps tetryl from trays into feed hopper of screen. Lines catch boxes with wax paper, and positions boxes beneath discharge spout of screen to receive screened tetryl powder. Weighs filled boxes and stacks on handtruck for transfer to storage. Carries containers of tetryl lumps to distillation equipment for reprocessing.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

551.685-150 VACUUM-PAN OPERATOR I (chemical)
Tends vacuum pan to wash and dry crystallized tetryl powder for further processing into explosives: Opens release valve to transfer tetryl from crystallizer to vacuum pan. Fills pan with warm water and turns suction valve to draw off liquid and dissolved impurities, leaving powder to settle in felt bag. Shovels and scrapes powder into tub on handtruck. May scrape powder into trays and place trays in drying chambers.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

551.685-154 VACUUM-PAN OPERATOR II (chemical)
Tends equipment that removes excess acid from nitrated crude tetryl explosive, preparatory to further processing: Opens valve to load vacuum pan with tetryl slurry. Turns steam jet to draw off excess acid. Shovels and scrapes remaining moist powder from pan, grids, and filter cloth; and flushes it with water hose down into funnel leading to washing tubs. May neutralize acid water from subsequent washing operations. May shovel specified amounts of lime into hopper of lime feeder that neutralizes acid water from subsequent washing operations.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

551.685-158 WAX BLEACHER (chemical) alternate titles: beeswax bleacher
Tends vats and filter presses to bleach wax used in candlemaking: Measures and dumps specified chemicals and wax into vats and turns thermostat knob to prescribed temperature to liquefy wax. Packs granulated charcoal on sides of filter press and starts pump to circulate molten wax through press. Stops pump after specified time and drains sample for laboratory analysis. Turns valves or starts pumps to transfer wax from press to tanks. Records types and quantities of wax used.
GOE: 06.04.11 STRENGTH: H GED: R3 M1 L2 SVP: 3 DLU: 77

551.685-162 WRINGER OPERATOR (chemical) alternate titles: tetryl-wringer operator
Tends centrifugal wringer to remove acid or water remaining in nitrocellulose after processing: Starts pumps to convey partially processed nitrocellulose slurry to wringer basket. Moves control to regulate speed of wringer throughout process, as instructed. Stops wringer after specified time and loosens nitrocellulose from walls, using scraper or fork. Opens discharge gate and pushes nitrocellulose through aperture into water immersion bowl to convey slurry to next operation, or hopper to be packed into containers. When removing water from nitrocellulose, may be designated Poacher-Wringer Operator (chemical). May take samples of nitrocellulose for laboratory analysis.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

551.686-010 BEAD PICKER (rubber reclaim.)
Picks bead wires from ground rubber tires as they pass on conveyor from grinding machine and drops them in container or on conveyor for removal to scrap area.
GOE: 06.04.29 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

551.686-014 EXTRACTOR LOADER AND UNLOADER (chemical)
Feeds conveyor and loads bones into tank of machine that extracts grease. Closes tank and seals cover. Rakes bones from tank after extraction process. Removes burlap filter from bottom of tank and washes and replaces filter.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

551.686-018 HOPPER FEEDER (oils & grease) alternate titles: grease-press helper
Rakes cooked offal or tankage from cookers or from platform near press into hopper of hydraulic press used to extract grease. Cleans working area and scrubs floors, using cleaning agents and brushes. May rake crackling residue from extractor tanks onto conveyor and start pump to transfer solvent to extractor tanks to dissolve crackling and be designated Extractor Puller (oils & grease).

GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

551.687-010 BONE PICKER (chemical)
Picks bones from offal as it passes on conveyor belt and tosses bones onto conveyor.
GOE: 06.04.34 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

551.687-014 BRINE MAKER II (chemical)
Weighs and adds specified quantities of chemicals to brine to purify solution preparatory to further treatment and refining of salt: Weighs chemicals, such as soda ash and lime, using scale, and pours them into brine tank. Removes residue from tank, using water hose and pumps. Dissolves specified tonnage of unprocessed salt in water to produce brine.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

551.687-018 DYNAMITE RECLAIMER (chemical) alternate titles: waste-house operator
Screens dynamite sweepings and broken cartridge shells to reclaim usable dynamite: Shovels floor sweepings and broken shells from powder buggy onto brass screen, using wooden shovel. Picks out foreign matter, such as paper and wood splinters, sifts explosive material from broken or malformed cartridges, and discards debris. Rubs dynamite through screen, using gloved hand. Shovels or dumps reclaimed dynamite into powder buggy for reprocessing.
GOE: 06.04.34 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

551.687-022 LABORER, COOK HOUSE (chemical)
Performs any combination of following duties to process stock (animal skins, splits, fleshings, and trimmings) for use in making glue or gelatin: Moves stock to kettle upon signal from COOK (chemical), using handtruck, and dumps stock into kettle. Turns valve to fill kettle with water to submerge stock. Skims grease from surface of water in kettle, using skimmer. Cleans kettle, using shovel, brushes, and water. Packs bottom of kettle with excelsior used to filter broth drained from kettle.
GOE: 06.04.34 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

551.687-026 NAPHTHALENE-OPERATOR HELPER (steel & rel.)
Assists NAPHTHALENE OPERATOR (steel & rel.) in separating naphthalene from chemical drain oil used to wash coke-oven gas or tar distillants: Shovels crystallized naphthalene from cooling pans into wheelbarrow. Breaks up large pieces of naphthalene, and transports material to centrifugal drier. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.34 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

551.687-030 SIFTER (pharmaceut.)
Sifts residue from tablet processing machines to salvage usable tablets and powder for reprocessing: Selects sieve according to size tablet being processed. Dumps residue from pail into sieve and picks out foreign matter and usable tablets. Places tablets in container and discards foreign matter. Shakes sieve to sift powder onto paper and pours powder into container. Weighs residue and records weight and identifying information on worksheet.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

551.687-034 SODA-ROOM OPERATOR (plastic-synth.) alternate titles: mercerizer; soaking-room operator; steeping-press operator
Guides sheets of woodpulp, used in rayon production, as they are lowered mechanically into steeping presses or vats of caustic soda and pressed to remove excess alkali. May weigh specified number of sheets, using scales. May convey woodpulp to steeping machine, using handtruck.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

552 DISTILLING OCCUPATIONS

This group includes occupations concerned with heating a mixture to vaporize the more volatile parts and separate them from the less volatile, and then cooling and condensing the vapor to produce a nearly pure or refined substance.

552.132-010 SHIFT SUPERINTENDENT, CAUSTIC CRESYLATE (chemical)
Supervises and coordinates activities of workers engaged in treating and distilling caustic cresylate to produce variety of cresol products: Observes recording-instrument charts, flowmeters, and gauges to verify process conditions. Correlates instrument readings and test results to diagnose malfunctions in process. Trains workers in procedures for correcting machine malfunctions and in specifications for process changes. Inspects equipment for mechanical defects and malfunctions, such as leaks and excessive wear. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.11 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

552.362-010 MONOMER-PURIFICATION OPERATOR (chemical)
Controls caustic-wash purification units to remove chemical inhibitors from butadiene and styrene monomers to prevent spontaneous polymerization during storage and transit: Starts pumps and injectors to recycle caustic solution through wash tank and mix liquid monomer with caustic solution. Reads gauges and laboratory analysis reports and adjusts controls to regulate mixing and separating of purified monomer and caustic solution containing inhibitor, according to plant standard. Drains caustic solution from wash tank and piping system and pumps cleaning solution through system to remove impurities.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

552.362-014 OXYGEN-PLANT OPERATOR (chemical)
Controls fractionating columns, compressors, purifying towers, heat exchangers, and related equipment to extract nitrogen and oxygen from air for industrial and therapeutic use: Turns valves in specified sequence to control flow of air through series of units that compress and liquefy it, remove carbon dioxide and impurities, and separate resulting product into nitrogen and oxygen. Observes pressure, temperature, level, and flow gauges to ensure standard operation. Tests oxygen for purity and moisture content at various stages of process, using burette and moisture meter. Adjusts equipment according to test results and knowledge of process and equipment. Opens valves to transfer liquid or gaseous oxygen through heat exchanger to cool air, to heat and vaporize liquid oxygen, and to store gaseous or liquid oxygen in storage tanks at specified temperature and pressure. Turns valves to transfer compressed oxygen to storage cylinders. Cleans and repairs equipment, such as replacing defective valves and removing carbon from valves, using handtools and airhose. Records gauge readings and test results. May open valves to convey hot nitrogen through alternate batteries of driers to remove moisture. May clean and refill drier with activated alumina. May operate equipment to extract, compress, and liquefy hydrogen from natural gas and be designated Liquid-Hydrogen-Plant Operator (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 78

552.362-018 RECOVERY OPERATOR (paper & pulp)
Controls evaporators, furnaces, and dissolving tanks to recover sodium compounds from chemicals spent in paper manufacturing processes: Patrols area around recovery units, observing recording devices and indicators on panelboards, flow of chemicals through units, and color of flame in furnaces to detect variations in pressure and temperature of evaporators, determine solid content of evaporated liquor, and detect incomplete burning of liquor in furnace. Turns rheostats to regulate pressure and temperature of evaporators, temperature and rate that liquor is sprayed into furnaces, and rate that molten sodium compounds are transferred from furnace to dissolving tanks. Tests solution at various stages of processing for specific gravity and titration, using testing devices. Adjusts and resets control instrument proportional bands on control board. Records meter readings at specified intervals on progress chart.
GOE: 06.02.11 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

552.362-022 STILL OPERATOR, BATCH OR CONTINUOUS (chemical) alternate titles: purification operator; rectifying operator
Controls batch stills or continuous stills and auxiliary equipment from instrumented control board or other control station to separate and condense liquids having close volatilization points, maintaining process control according to instrument readings, test results, and knowledge of equipment and procedure: Reads charge sheet to determine types and quantities of materials to be distilled, specified sequence of operations, and control settings for attainment of prescribed fractionation. Starts pumps and turns valves to admit volatile liquids into still. Observes pressure and temperature gauges and moves controls to specified settings to attain volatilization rate consistent with efficient and safe operation, according to knowledge of process and equipment. Moves controls to maintain specified operating equilibrium in condensers and still auxiliaries, and to set reflux rate for recycling maxium portion of distillate through equipment consistent with efficient operation. Draws sample of product for laboratory analysis, or performs standard refractometric, boiling-range, colorimetric, titration, or specific quantity analyses to determine effectiveness of distillation. Turns valves and starts pumps to route distilled fractions to receiving tanks according to correlation of data from laboratory tests or observation of product color. Records data computed from instrument readings and test results, such as weight of product and yield. May direct activities of other workers who assist in operation of stills and auxiliary equipment. May be designated according to distilled product as Alcohol-Still Operator (chemical). May be designated according to type of still operated as Batch-Still Operator (chemical) II; Continuous-Still Operator (chemical).
GOE: 06.02.11 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

552.382-010 PYRIDINE OPERATOR (steel & rel.) alternate titles: pyridine-recovery operator
Controls equipment, such as washers, rectifiers, condensers, and mixing tanks arranged in series to recover pyridine sulfate from tar oils: Prepares solutions of diluted sulfuric acid and sodium carbonate to specified concentration by adding water. Pumps solutions into system to dissolve pyridine and neutralize acids. Starts pumps to circulate batch through system, observing gauges and other instruments. Removes tarry compounds dissolved in pyridine sulfate solution by rectifying (boiling) solution with steam. Samples products for analysis, and interprets results and makes adjustments to control quantity and quality of product according to laboratory report. Inspects equipment, and steams out lines, changes charts, lubricates equipment, and makes minor repairs and adjustments.
GOE: 06.02.11 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 77

552.462-010 DISTILLATION OPERATOR (chemical) alternate titles: purification operator
Operates batch or continuous still to separate intermediate products or impurities from coal tar compounds: Charges still and starts flow of coal tar compound through still units. Turns control valves and observes recording instruments and gauges to attain temperatures, material flow rate, pressure, or vacuum specified for distillation of designated product. May compute variances between laboratory analysis and product specifications, using prescribed formula to determine temperature and flow-rate adjustments. May observe gauges or use measuring rod to verify quantities of chemical materials in feed and hold tanks of still unit. May direct activities of helpers. May be designated according to product distilled as Naphthalene-Still Operator (chemical); Tar-Heater Operator (chemical).

GOE: 06.02.18 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

552.682-010 DISTILLER I (chemical) alternate titles: refining-still operator; still tender

Operates stills to refine crude wood turpentine obtained by destructive distillation and steam distillation process: Regulates flow of crude wood turpentine into stills and regulates steam used to heat stills. Observes progress of stills and at specified time during process diverts distilled products (wood turpentine, pine oils, resin oils) into tanks.
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

552.682-014 DISTILLER II (chemical)

Controls continuous still equipment to distill pine oleoresin into oil of turpentine and rosin: Turns valves to transfer heated oleoresin from melting vats into cleaning, filtering, and washing tanks to clean, filter, and wash trash, foreign matter, and other impurities from resin preparatory to distillation. Pours specified amounts of oxalic acid into tanks to facilitate cleansing process, using graduated cylinder. Drains impurities from wash tanks and starts pump that forces resin into still. Turns valve to circulate water through steam jackets. Observes temperature gauge and turns valve to regulate heat to specified temperature to condense turpentine vapors. Turns valve to drain rosin from still. Observes sample of distillate for clarity and separation of turpentine from oleoresin to determine completion of distillation. Occasionally replaces filters in tank and cleans tank as necessary.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

552.682-018 EXTRACTOR OPERATOR (chemical) alternate titles: digester operator

Operates digesters in steam distillation process to extract crude turpentine from wood: Regulates flow of steam through digesters. Gives directions to EXTRACTOR-OPERATOR HELPER (chemical) engaged in filling digesters with wood chips and dumping spent wood from digester.
GOE: 06.04.18 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

552.685-010 ACETONE-RECOVERY WORKER (plastic-synth.)

Tends equipment to recover acetone, used in acetate rayon manufacture, from vapor produced by dry spinning (forming) of rayon filaments: Turns valves to admit vaporized acetone from spinning units to recovery system and to maintain cooling coils in condenser at specified temperature for efficient acetone recovery. May pump recovered acetone to storage tanks or recirculate it to mixing machines in which cellulose acetate flakes are dissolved to form spinning solution.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

552.685-014 BATCH-STILL OPERATOR I (chemical) alternate titles: distiller

Tends batch stills to separate, by distillation, liquids having divergent volatilization temperatures: Pours specified types and quantities of materials into still. Observes thermostat and sets controls on instrument panel to maintain specified volatilization temperatures throughout distillation cycle and to control condensation of components. Draws samples of distilled liquids for laboratory analysis or performs refractometric or other tests, using standard procedure and equipment. Observes color of distillate to determine when distillate is completed. Records operating data, such as weight, yield of products, gauge readings, and number of batches distilled. May tend continuous-flow vacuum still. May be designated according to product distilled or formed as Ammonia-Still Operator (chemical); Crystallizer Operator (chemical) II; Degreasing-Solution Reclaimer (chemical); Glycerin Operator (soap & rel.).
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

552.685-018 BATH-MIX OPERATOR (plastic-synth.)

Tends still that purifies solvents used in processing plastics: Screws drain valves into chemical drums and lifts drum onto rack, using hoist. Dumps contaminated solvents into still, and turns steam valve to vaporize impurities and reclaim solvents. Cleans empty drums, using brush and solvent and moves them to storage on handtruck.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

552.685-022 RETORT-CONDENSER ATTENDANT (chemical)

Tends retort vapor condensers used in destructive distillation of wood: Starts pump that discharges contents of receiving tanks into settling tanks. Caulks doors of retort if leak occurs. Turns valves on gasline or oil line to supply fuel to burners or to to control temperature in retort.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

552.685-026 STILL TENDER (any industry)

Tends flash-type still that reclaims or separates liquids, such as solvents, through volatilization and condensation: Starts pump to draw liquid into tank and allows impurities to settle. Turns valve to transfer liquids into still. Observes temperature gauge and adjusts valve to heat liquid to specified temperature and vaporize liquid in tank. Turns valve to circulate water through tank jackets to condense vapors. Observes distillate for clarity, through pipeline viewer. May be designated according to liquid recovered as Solvent Recoverer (plastic-synth.).
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

552.685-030 STILL-OPERATOR HELPER (chemical)

Tends distillation units and auxiliary equipment to separate volatile chemical compounds into specified components, performing combination of following tasks under direction of equipment operator: Turns valves and starts pumps as directed. Records temperature, pressure, and flow indicator readings. Measures liquid in tanks, using gauging rod or tape, and draws samples for laboratory analysis. Inspects pipes for leaks. Moves controls to start semiautomatic still auxiliaries, such as heat exchangers, stripping columns, vaporizers, flash tanks, and condensers, and to maintain specified operating equilibrium in equipment as directed. Assists STILL OPERATOR, BATCH OR CONTINUOUS (chemical) in transferring equipment and materials. Cleans equipment, using hose, brushes, and scrapers. May tend equipment to produce gas leak detectant odorants and be designated Second Operator (chemical).
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

552.686-010 EXTRACTOR-OPERATOR HELPER (chemical)

Feeds wood chips into digesters used in steam distillation process for extracting crude turpentine: Seals cover to opening at bottom of digester. Starts conveyor to fill digester with wood chips through charging hole at top. Seals cover to charging hole. Removes cover on hole at top of digester to dump spent wood from digester at end of extraction process.
GOE: 06.04.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

552.687-010 DISTILLATION-OPERATOR HELPER (chemical)

Starts pump to transfer coal tar distillates to storage or processing tanks. Dips measuring rod into tanks to verify quantities of distillates in tanks. Moves neutralizing chemicals to work area preparatory to charging of still, using handtruck.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553 HEATING, BAKING, DRYING, SEASONING, MELTING, AND HEAT-TREATING OCCUPATIONS

This group includes occupations concerned with removing moisture from material by exposure to heat, air, vacuum, or desiccants; exposing material to heat to facilitate its processing by others, liquefy solids or gases, change chemical composition, effect texture and consistency, or remove solvents or other undesirable components.

553.132-010 SUPERVISOR, GREASE REFINING (oils & grease)

Supervises and coordinates activities of workers engaged in extracting and refining grease produced by cooking glue stock and in converting tankage to fertilizer: Estimates weight and type of tankage or grease in process and specifies amount of acid to be used. Examines refined grease to ensure specified level of clarity. Directs blending of grease according to formula and loading of grease into tank cars. Records amounts of grease refined, blended and shipped, amounts of acid used, and moisture content of each batch of fertilizer. Trains workers in operation of cookers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

553.362-010 BELT-PRESS OPERATOR I (rubber goods)

Sets up and operates single- or double-deck platen curing press to cure transmission or conveyor belting: Gives directions to workers engaged in setting up press according to specified width of belt, pressure, temperature, and curing time. Positions guide stops in press to accommodate height of belt to be cured. Inspects sections of press for conformity to specifications and verifies temperature and time settings. Observes machine operation to detect malfunction. Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift and position belt rolls in work area.
GOE: 06.02.13 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

553.362-014 AUTOCLAVE OPERATOR (aircraft mfg.) alternate titles: bonding equipment operator

Sets up and operates autoclaves and auxiliary equipment to cure and bond metallic and nonmetallic aircraft parts and assemblies according to specifications: Reads and interprets shop orders and authorization documents to determine bonding process specifications. Selects parts and assemblies for simultaneous bonding, based on similarity of processing requirements and autoclave capacity. Arranges jigs and fixtures containing parts and assemblies on bonding racks and positions racks in autoclave, manually or using equipment, such as hoist, forklift, or tow. Inspects general condition of parts and assemblies, examines positioning of parts and assemblies in jigs and fixtures, and verifies that vacuum bag installation conforms to specifications prior to bonding. Connects thermocouples and vacuum lines to fittings on jigs and fixtures and inside autoclave. Adjusts manual controls or enters commands in computerized control panel to regulate and activate autoclave power supply, cooling system, vacuum, heat, and pressure gauges and recorders, and to close interlocking autoclave doors. Monitors instruments, switches, and recorders and listens for warning signals during autoclave operation to ensure conformance to specifications, and modifies or aborts process as required. Maintains manual or computerized autoclave processing records. Operates curing ovens and presses with heated platens [METAL-BONDING PRESS OPERATOR (aircraft mfg.) 553.382-026] to cure and bond parts. Suggests methods or procedures for improved operations to supervision or liaison personnel. Discusses loading, unloading, and operation of autoclaves and auxiliary equipment with other operators and workers to ensure safety of individuals working in and around high-pressure autoclaves. May calibrate autoclave system components.

GOE: 06.02.18 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 88

553.364-010 SAMPLE TESTER (chemical)
Tests samples of phosphoric acid, according to prescribed standards, to determine chemical and physical characteristics of acid for purposes of quality control, process control, and conformity to specifications: Mixes specified amounts of processed acid with control chemicals in flask, shakes flask to mix them, pours solution into container of colorimeter to determine strength of acid, and records results of test. Determines specific gravity of acid in slurry, using water vacuum equipment and hydrometer, and records results of test. Determines specific gravity of final product, using hydrometer, and records results of reading. Notifies operators of changes in their processes that affect quality of final product. Bottles and labels samples taken at various stages of processing for laboratory analysis. Cleans laboratory and equipment after each test run and at end of shift.
GOE: 02.04.01 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

553.382-010 AUTOCLAVE OPERATOR I (chemical)
Controls autoclave (high-pressure tank) to process liquid, solid, and gaseous ingredients into chemical products according to specifications: Reads production schedule to determine product, ingredients, temperature, pressure, and duration of process. Turns valves to load liquid ingredients into tank. Weighs out and dumps solid ingredients and catalyst into equipment, and turns steam and coolant valves to heat mixture to specified temperature. Turns valves to displace accumulated gases to avoid explosion. Closes vent to seal autoclave. Sets dials to control pressure and flow of gaseous material through mixture. Opens vent to admit product into load tank. Connects drain line from load tank to filter press, using handtools, and starts pumps to force product through press to separate catalyst. Drains product into drum and starts pumps to transfer catalyst to load tank for reuse. May test samples of materials produced, using refractometer or other standard test equipment, to ensure attainment of specified product.
GOE: 06.02.11 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

553.382-014 BOILER (soap & rel.)
Controls kettles to boil soap ingredients, such as lye, resin, palm oil, and tallow, to specified consistency: Opens valves to fill kettle with ingredients in specified amounts, and weighs and dumps ingredients in kettle, using scale. Opens steam valve to heat kettle to specified temperature. Observes boiling rate, reads temperature gauges, and turns valves to maintain temperature within critical limits. Boils ingredient for specified time and draws and tests sample for consistency, specific gravity, and chemical content, using laboratory equipment, such as hydrometer. Starts pumps and opens valves to transfer mixture to storage tanks. May stir ingredients with paddle.
GOE: 06.02.18 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

553.382-018 EVAPORATOR OPERATOR I (chemical) alternate titles: multiple-effect evaporator operator; vacuum-pan operator
Controls single-stage or multiple-effect evaporators to concentrate chemical solutions to specified density by evaporation: Starts pumps and turns valves to admit liquid solution, steam, and cooling water into system. Observes temperature, pressure, and vacuum gauge readings and adjusts pumps to conform to specifications. Turns feed valves to regulate flow of solution through system and to obtain specified concentration. Tests solution pumped from last effect, using hydrometer, to ascertain that solution is concentrated to specified density. Observes manometers and looks through sight glass to ensure that steam vapors are not carried to next effect with solution. Tests steam condensate with reagents to detect contaminated solution. May control equipment from instrumented control board. May tend equipment, such as preheaters, thickeners, settlers, and filters, that prepare solution for evaporation. May clean evaporator shell and tube nest with chemical to remove scale. May operate multiple-effect unit as one or more single evaporators.
GOE: 06.02.11 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

553.382-022 VARNISH MAKER (paint & varnish) alternate titles: varnish blender; varnish cooker; varnish melter
Controls equipment to melt, cook, and mix ingredients, such as gums, oils, turpentine, and naphtha, for use in manufacture of varnishes: Weighs gum and dumps it into gum pot or agitator tank over burner. Pours in oil, as gum becomes liquid, and adjusts burner controls to regulate heat. Controls burners to cook mixture for specified time. Starts pump to transfer varnish base and thinner into reducing tank. Starts agitator to mix base and thinner for specified time. Fills test tube with varnish and compares viscosity with standard sample, or delivers test tube to laboratory for test. Pumps varnish through filter press to remove sediment from varnish.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

553.382-026 METAL-BONDING PRESS OPERATOR (aircraft mfg.) alternate titles: platen operator, metal bond
Sets up and operates hydraulic press equipped with heated platens to bond metal aircraft and space vehicle parts and assemblies: Reads blueprints and shop orders to determine areas of parts to be joined, amount of bonding agent to apply, and temperature and pressure required. Examines parts or assemblies for surface defects and positions parts on machine bed, using jigs or fixtures. Applies adhesives to surfaces to be bonded. Installs thermocouple leads to machine, using handtools. Starts machine and adjusts controls to regulate pressure, heat, and curing time. May assemble parts prior to aligning them in machine. May operate autoclaves and ovens to cure and bond parts and assemblies [AUTOCLAVE OPERATOR (aircraft mfg.) 553.362-014].
GOE: 06.02.02 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 87

553.385-014 PRIMER EXPEDITOR AND DRIER (chemical)
Tends vacuum tank that dries priming mixture, and dries and stores loaded cartridge primers and primed rim-fire cartridge cases: Transfers trays or boards filled with explosive primers or cases from loading room to steam-heated dryhouse, using shockproof cart. Places filled trays in numbered racks or bins. Reads gauges and turns valves to control temperature in dryhouse. Collects primers and cases from storage to fill requisitions and keeps perpetual inventory. Loads primers on screen trays of vacuum tank and starts vacuum pump, steam heat, and fans that force-dry priming mixture when requisitions do not permit sufficient time for air drying. May deliver primers and cases to production departments and record date, lot number, and grade.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

553.462-010 FLASH-DRIER OPERATOR (chemical)
Controls flash-drier furnace and auxiliary equipment to remove water from activated carbon slurry, for use in industrial and consumer applications: Tests specific gravity of carbon slurry in agitator tank, using hydrometer, and draws sample for acidity testing by WASH OPERATOR (chemical). Admits water and dumps prescribed amount of caustic into slurry tank to bring density and acidity readings to prescribed standard. Turns valve to heat slurry to specified temperature and starts pumps to transfer slurry to vacuum drum filter. Adjusts gate leading to paddle mixer to regulate flow of slurry to furnace. Sets automatic controls to maintain furnace temperature at plant standard. Moves switches and turns valves to regulate furnace blowers and cyclone filters that control flow and discharge dried carbon. Directs activities of workers engaged in tending filter and carbon-bagging machines. Weighs carbon samples taken from furnace discharge spouts and computes percentage of moisture removed, using standard formula. Keeps log of gauge readings and test results. Verifies setup of scraper blade on filter drum for efficient operation. May turn fuel valves to regulate furnace conditions in manually controlled units, according to specifications.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

553.482-010 AGER OPERATOR (plastic-synth.)
Controls continuous process equipment to age alkali cellulose for use in cellophane manufacture: Takes wet and dry-bulb temperature readings in air ducts through which cellulose will pass on conveyor and calculates humidity in ducts, using graphs. Reads instruction tables to determine setting of conveyor screws and belts under existing humidity conditions. Turns screws to adjust conveyor speed to regulate length of aging cycle, and to set humidistat that maintains specified humidity in ducts. Records operating data.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

553.486-010 CALCINE FURNACE LOADER (paint & varnish)
Performs variety of duties to assist CALCINE-FURNACE TENDER (paint & varnish) in baking pigments to bring out color: Scoops dry blend of pigments from drums into clay saggers (pigment containers) and stacks saggers on bed of kiln. Positions kiln bed on hydraulic lift, using forklift. Moves controls of hydraulic lift to raise kiln bed into overhead kiln and secures bed in kiln. Removes bed from kiln on signal from CALCINE-FURNACE TENDER (paint & varnish) and empties saggers of calcined pigments into drum. Weighs and tags drum and moves it to storage area, using handtruck. May load saggers of dry blend onto revolving track of circular kiln for continuous-calcination process. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

553.582-010 DRIER OPERATOR II (chemical) alternate titles: tunnel-drier operator
Operates atmospheric tunnel driers that heat liquids or slurries to remove water or other volatile liquids: Moves controls to regulate preheaters, fans, and conveyor belts or other material feeding mechanisms to maintain continuous operation. Turns steam valves and sets automatic temperature controls to attain specified drying temperature. Observes temperature charts and conveyors to correct equipment malfunctions and jamming of feed or discharge conveyors. Examines and feels materials for moisture content or obtains sample for laboratory moisture analysis, and readjusts equipment controls to attain specified product. Stops drier units in sequence as material feed is exhausted. Records data, such as type and quantity of material dried and drying time. May tend continuous pan driers that automatically transfer materials through drier in pans on conveyor chains, and dumps dried contents after drying. May tend or feed auxiliary equipment, such as grinding mills and baling machines that process dried product. May be designated according to type of drier as Continuous-Conveyor-Screen Drier (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

553.582-014 POT FIRER (chemical)
Controls heated pots to dehydrate concentrated caustic solution, according to operating procedures: Starts pumps and opens valves to admit specified quantity of caustic solution to pots. Reads pressure and flowmeters and charts, and turns valves to control flow of caustic liquor to prevent overflow in pots. Observes boiling rate and temperature recorders and turns valves or sets thermostat to maintain pot temperature within specified limits. Records flow, pressure, and temperature readings in operating log. May perform chemical tests on caustic and add reagents to facilitate production of standard product. May tend machine that flakes caustic soda [FLAKER OPERATOR (chemical; smelt. & refin.)]. May fire oil or gas furnaces under direction of STATIONARY ENGINEER (any industry).

GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

553.585-010 DEBUBBLIZER (plastic-synth.)

Tends high-pressure heating equipment that removes internal solvent bubbles from nitrocellulose rod stock: Loads precut rods into cylinder chamber. Turns valves to fill cylinder with hot water and admit steam into cylinder jacket. Observes gauges and turns valves to regulate temperature and pressure. Turns valves to drain water, reduce pressure, and refill cylinder with coolant to set softened and compressed stock. Drains coolant from cylinder and removes debubblized rods from cylinder chamber. Records number and type of rods processed.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

553.585-014 DRY-HOUSE ATTENDANT (chemical)

Tends drying room in which pyrotechnics (fireworks) are cured, dried, or stored: Stores trays of pyrotechnics on racks according to date of processing. Observes room thermometers and moves controls of blower heater to keep drying room temperature within prescribed limits. Issues stored pyrotechnics to workers according to date of processing or removes materials at expiration of specified period and stores them in metal containers for further processing.

GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

553.585-018 DRYING-ROOM ATTENDANT (soap & rel.) alternate titles: drier tender

Tends equipment in steam-heated drying room that dries and hardens bar soap: Pushes racks of soap into and out of room according to prescribed schedule. Turns and adjusts steam valves to heat and maintain room at specified temperature. Starts electric dolly that moves soap racks through drying chamber. Records number of racks processed.

GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

553.585-022 THERMAL MOLDER (rubber goods) alternate titles: heater tender

Tends steam heaters or presses that shape and cure rubber floor mats: Positions sheets of precut calendered rubber on molds. Turns valve to activate vacuum fixtures that draw and hold rubber against contours of molds. Examines molds to ascertain that rubber sheet covers mold and smooths out wrinkles. Removes excess rubber from mold, using knife or roller. Pushes switch to close press and move heater carriage into heater. Turns valve to admit steam and sets timer for specified curing time. Strips cured mats from mold. Examines mats for defects, such as discoloration, misforming, blisters, and cracks. Marks defective mats for repair and places them on skids.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

553.585-026 TUMBLER OPERATOR (rubber goods)

Tends tumblers that dry, treat, and screen latex prophylactics preparatory to testing: Weighs and keeps each batch separate. Dumps batch into drying, treating, and screening tumblers, following specified sequence. Adds treating agents, such as oil emulsion, cornmeal, and lycopodium to treating tumbler for finishing. Dumps finished batch into container and identifies batch with date, time, type, and number, and sets batch aside for testing. Records temperature and humidity gauge readings, treating agents used, and number of batches tumbled.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.665-010 BELT-PRESS OPERATOR II (rubber goods)

Tends section of single- or double-deck platen press to cure rubber transmission and conveyor belting under direction of BELT-PRESS OPERATOR (rubber goods) I 553.362-010, working as crewmember: Positions guide stops in press to cure belting to specified thickness and width. Sprays press with solution to prevent adherence to belt during cure. Helps crew pull belt from roll onto press. Lifts empty roll shell onto *windup rack* and adjusts guides and speed of windup as belt goes onto roll after cure. Adjusts knives to trim rind from belt. May guide belt over pricker roll prior to going into windup after cure. May signal OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift and position belt rolls from windup rack to storage area.

GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

553.665-014 BLACK-MILL OPERATOR (chemical)

Tends furnace and shaker screens to produce boneblack animal charcoal from ground bones: Turns dial on control panel to start feed of ground bones to furnace and turns handwheel to adjust oscillating speed of shaker screens to maintain uninterrupted production. Observes recording thermometer to verify specified temperature in furnace. Inspects conveyors, vibrating feeders, and shaker screens for clogging or malfunction. Tightens drive belts, using wrenches and other handtools. Gives directions to other workers in spreading boneblack over cooling floor and in loading cooled boneblack onto conveyors.

GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

553.665-018 COOK (chemical) alternate titles: extractor; hide-cooking operator

Tends equipment that cooks animal stock (animal skins, splits, fleshings, and trimmings) used to make glue or gelatin: Signals workers to fill kettle with stock. Turns valve to allow water to flow into kettle to submerge stock. Starts heaters and adjusts temperature. Cooks stock for prescribed period of time and tests sample of broth for specific gravity, using hydrometer. Compares hydrometer readings with readings on conversion tables to determine approximate amount of glue or gelatin that batch will produce. Drains broth from vat to storage tank, refills kettle with water, and cooks stock several times at progressively higher temperatures. May stir stock in kettle, using wooden paddles. May tend equipment to wash stock prior to cooking [WASH-MILL OPERATOR (chemical)].

GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

553.665-022 COOKER TENDER (oils & grease)

Tends cookers that melt grease and tallow from offal, bone, and meat: Turns valves to admit steam to cooker (steam-jacketed tank equipped with revolving, power-driven paddles for agitating material) until indicator on steam pressure gauge reaches specified point. Turns handwheel or lifts lever to open discharge gate of cooker when light indicates material is ready for further processing. Starts (reverses) agitator paddles that force cooked material into vat or conveyor hopper. Signals COOKER LOADER (oils & grease) or OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to refill cooker. May shovel cooked material from vat into conveyor hopper. May load cookers. May pull material from cooker, using hoe.

GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

553.665-026 DRIER OPERATOR I (chemical) alternate titles: atmospheric-drier tender; dry-room operator

Tends cabinet or room-type driers that heat liquids or slurries to remove water or other volatile liquid components: Shovels or dumps materials into pans and places them on drier shelves, in racks, or on wheeled trucks that are pushed into drier. Observes thermometer and humidity gauge, turns steam or fuel valves, and moves controls to maintain temperature, humidity, and air circulation in drier, according to specifications. Shuts down drier at end of drying cycle or on notification by control laboratory. Unloads driers or notifies other workers to remove dried material. May weigh dried materials and fill bags or other containers. May feel materials to ascertain dryness.

GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

553.665-030 DRUM-DRIER OPERATOR (chemical)

Tends drum drier that dries activated carbon sludge, used in variety of industrial and consumer applications: Sets drier controls and starts sludge pumps and agitators to dry product that meets prescribed standard. Turns valves to increase water content of sludge to prevent caking, according to hydrometer readings supplied by other workers.

GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

553.6 -034 FIRER HELPER (paper & pulp)

Tends equipment that burns condensed black liquor into black ash: Turns valves to regulate spray of black liquor into cyclone drier and flow of air through drier to dry black liquor to specified concentration. Determines moisture content of liquor, using moisture testing equipment. As directed, turns rheostat to adjust mechanism in mixing tank to feed salt cake into black liquor prior to burning. Turns valves as directed to channel steam into evaporators or into main line. Pushes *steam lance* through boiler tubes or turns crank that rotates steam jets through boiler to blow out soot and sludge. Scrapes sludge from interior of furnace, using scraper and rake.

GOE: 06.04.14 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

553.665-038 HEATER TENDER (rubber goods; rubber reclaim.; rubber tire) alternate titles: curer; rubber curer; vulcanizer operator

Tends equipment, such as cylindrical ovens, horizontal pot heaters, tunnel driers, or atmospheric heaters that shrink, cure, or remove moisture from natural or synthetic rubber materials or products: Loads or feeds rubber materials or products, such as sheets of raw rubber, devulcanized scrap rubber, rubber coated fabric, or rubber products into oven, using trays, racks, handtrucks, or conveyors. May lift fabric rolls onto *letoff rack* of heater, using hoist, and thread fabric between feed rollers and onto *takeup roll*. May turn controls to regulate speed and amount of materials conveyed through heated chamber. Turns heater valves to admit steam or regulate temperature and to admit ammonia when specified. May start blowers to circulate air. Removes product or material from oven after specified time. May be designated according to product dried as Drier (rubber goods); Drier Operator (rubber reclaim.); Drier Tender (rubber goods).

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

553.665-042 PLASTICS SEASONER OPERATOR (plastic-synth.)

Tends dry houses, cell driers, or drying ovens that remove solvent and contaminants from plastics materials: Observes temperature and moisture gauges and turns controls to control drying process. Unloads driers or notifies workers to unload ovens.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.665-046 STEAM-PRESS TENDER I (rubber goods)

Tends press that cures rubber transmission and conveyor belting, as directed by BELT-PRESS OPERATOR (rubber goods) I, working as crewmember: Turns valves to obtain specified pressure and temperature, and sets timers on section of press. Verifies pressure, temperature, and timers on other sections of press, and notifies STEAM-PRESS TENDER (rubber goods) II of findings. Pulls belt into press from *letoff rack*. Moves levers to open press. Participates in rolling belt onto *windup rack* after cure.

GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

553.665-050 STEAM-PRESS TENDER II (rubber goods)

Performs following duties to prepare press for curing transmission and conveyor belting, working as crewmember: Turns pressure valves, adjusts temperature controls, and sets timers on press sections, following directions of

STEAM-PRESS TENDER (rubber goods) I. Pulls levers to open and close press. Positions shells in *windup rack* and guides cured belt onto roll.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

553.665-054 TRAY-DRIER OPERATOR (chemical)
Tends tray drier and drum filter that dries and filters activated carbon sludge used in variety of industrial and consumer applications: Turns dials and observes temperature and moisture gauges to control drying process. Pushes empty trays onto roller conveyor for filling with sludge and transferring filled trays to drier chamber in wheeled cage.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

553.682-010 BLACK-ASH-BURNER OPERATOR (paper & pulp)
Controls furnace in which condensed black liquor is burned to black ash for use in recovering sodium compounds: Turns rheostat control to adjust mechanism in mixing tank to feed specified quantities of salt cake into black liquor. Turns valves and air intake ports to regulate spray of liquor and air into furnace, according to combustion charts, to ensure complete combustion of organic matter. Starts conveyor to carry molten black ash from taphole of furnace to water dissolving tank in which green liquor is formed, or opens furnace port allowing ash to flow directly into dissolving tank. Starts motor to pump green liquor into settling tank. Adjusts valves to channel steam generated by furnace through liquor evaporators or into main steam line. Cleans liquor pipes, using steam and rod, and scrapes residue from furnace interior.
GOE: 06.02.14 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

553.682-014 CURER, FOAM RUBBER (rubber goods)
Operates conveyorized curing unit from control panel to process latex mixture into foam rubber sheeting: Starts pump to transfer latex and air into mixing tank to obtain latex of specified density. Weighs sample of latex in measuring cup to determine if density meets specifications. Pumps specified compounds into mixing tank with latex and starts agitators that mix ingredients. Starts belt conveyor and turns setscrews to adjust scraper bars for dimensions specified for rubber sheeting. Turns dial to regulate heat in curing ovens. Pumps latex mixture onto belt conveyor that carries it under scraper bars and through curing ovens. Verifies dimensions of cured rubber sheeting with rule.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

553.682-018 EVAPORATOR OPERATOR II (chemical)
Operates evaporator to separate turpentine oils from rosin: Regulates valves and pump controls to pump specified amount of crude turpentine to evaporator. Regulates valves and pump controls to draw off vapors from evaporator, leaving rosin as residue.
GOE: 06.02.18 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

553.682-022 REDUCTION-FURNACE OPERATOR (chemical) alternate titles: catalyst operator
Operates reduction furnaces and equipment to produce catalyst used in manufacture of margarine and shortening: Scoops powder into rotating reduction furnace that feeds it into mixing tank containing premeasured amount of oils. Observes gauges and regulates heating and mixing controls to ensure processing according to standards. Turns valves to pump finished product into holding tank. Opens valve to fill containers with catalyst. Keeps log of operations.
GOE: 06.02.15 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

553.682-026 V-BELT CURER (rubber goods)
Operates automatic presses to cure rubber V-belts: Hoists uncured belts from storage rack arm, using lifting device and slides belts over collapsible curing drum. Aligns belts in individual V-shaped rings of drum, and pushes button to expand first drum segment. Realigns belts in rings and expands last segment. Brushes soap solution on air bag of drum-curing retainer and pushes button to insert loaded drum into retainer. Observes gauges and adjusts pressure and temperature valves and regulator arms to maintain specified curing conditions. Slides carrying device under belts where segments automatically break down when drum slides from retainer after cure. Forces carrying device between belts and stationary segment of drum to break belts loose. Lifts cured belts and slides belts onto rack arm. Changes drums and retainers, using hoist and handtools.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

553.684-010 HEAT WELDER, PLASTICS (plastic prod.) alternate titles: welder, plastic
Fuses together plastic sheets, using hot-air gun to melt and join edges of sheets: Cuts sheets to be joined to form smooth edges, using knife. Sands edges, using power sander, to form V-joint. Places plastic rod in V-joint and activates hot-air gun to melt rod, causing mass to fill V-joint and join edges of sheets.
GOE: 06.04.31 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

553.684-014 NITROCELLULOSE OPERATOR (chemical)
Screens and dries nitrocellulose to prepare it for use in making dynamite: Shovels nitrocellulose from drum onto nonsparking screen, using wooden shovel. Rubs nitrocellulose through screen by hand to remove foreign material. Spreads screened material on trays and places trays in drying chamber. Starts blower and tests drying material periodically, using moisture meter, to ensure that moisture content of nitrocellulose meets specifications. Scrapes dried material into fiber drums for delivery to dynamite mix house.
GOE: 06.04.34 STRENGTH: H GED: R3 M1 L1 SVP: 4 DLU: 77

553.685-010 AMMONIUM-NITRATE CRYSTALLIZER (chemical)
Tends equipment that evaporates ammonium nitrate solution to form crystals used in making dynamite: Starts pump to move specified quantities of ammonium nitrate solution from storage tank to weighing tank. Opens valve to dra weighed solution into heated tub. Starts agitator to mix solution as water evapo rates and turn material as it crystallizes. Weighs out and pours specified qua tities of chemicals into tub to prevent hardening of ammonium nitrate and ensure uniform crystallization, indicated by visual inspection. Opens gate side of tub to transfer crystals to storage barrels.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

553.685-014 BAGGER (plastic prod.) alternate titles: vacuum-formin machine operator
Tends heating and vacuum equipment to cure preformed plastic parts: Pos tions part in plastic bag and seals bag with hot iron. Inserts vacuum tube bag and seals bag around tube with tape. Places part on cart, connects vacuu line to tube to remove air from bag, and smooths bag around part with bru to ensure complete vacuum. Pushes cart into curing oven or places part in au clave. Sets oven controls or turns air-pressure valve of autoclave, as specifie to cure part. Removes part and cuts away plastic bag, using knife. May for part by positioning plastic sheet and mold in plastic bag, heating sheet und lamps, and forcing conformation of sheet to mold by vacuum pressure of ba May impregnate fabric with plastic resins and cut fabric into strips for use laminating preformed part.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

553.685-018 BONE-CHAR KILN TENDER (chemical)
Tends gas-fired kiln to reclaim char (activated carbon) used in filtering co syrups: Observes thermometers and turns gas valves to heat and maintain spe fied temperatures in kiln. Starts conveyors that transfer char to and from ki Dumps sacks of char into kiln to replenish supply lost during firing process.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-022 BONE-DRIER OPERATOR (chemical) alternate titles: bo drier; dry-box operator; glue-bone drier
Empties bone cooking tanks and tends oven that dries bones from which gl has been extracted: Opens bottom of bone cooking tank. Starts feed mechani and rotary paddles of oven. Places rod into top of cooking tank and push bones through opening of tank bottom into feed mechanism of oven. Wh bones are dried, presses button to stop rotary action of paddle in oven. Mov lever and locking device to release oven door. Presses button to actuate paddl inside oven that push dried bones from oven into bags or onto cart. Loads fill bag onto handtruck and pushes truck or cart to storage area. May turn di to regulate temperature of oven. May bag, weigh, and close bags containi dried bones.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-026 CADMIUM-LIQUOR MAKER (paint & varnish) alterna titles: liquor maker
Tends equipment that makes cadmium sulfate used in making pigments paints and enamels. Shovels cadmium *moss* into tank of boiling water and s furic acid to form cadmium liquor. Tests liquor solution for acid and fore content, as specified by laboratory.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-030 CALCINE-FURNACE TENDER (paint & varnish) alterna titles: kiln operator
Tends kiln that develops color of pigments used in making paints and gl enamels: Moves controls to set automatic heat regulator that maintains specifi temperature in kiln. Adjusts gas burners in kiln, using handtools, and lig pilot flames and burners. Raises kiln bed or signals CALCINE FURNA LOADER (paint & varnish) to raise kiln bed, containing pigments, into k and to remove bed from kiln after specified time. May fill and empty sagg (pigment containers) [CALCINE FURNACE LOADER (paint & varnish)]. M tend crusher that breaks calcined chunks of pigment into smaller particles. M tend auxiliary equipment, such as coaler, conveyor systems, pump, and rota vacuum filter.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

553.685-034 CONTINUOUS-LINTER-DRIER OPERATOR (chemical)
Tends equipment that fluffs and dries cotton linters or woodpulp for furth processing into explosives: Places portion of linters or woodpulp on revolvi rollers that feed it into cylinder equipped with picking spikes. Inspects fluff material for presence of impurities and fluffy appearance as it is discharged i drier. Moves controls to maintain temperature of hot-air oven at plant standa and to regulate speed of drier conveyor for efficient drying. When tending se rate picking and drying units, may be designated according to unit tended Cotton-Picker Operator (chemical); Linter-Drier Operator (chemical).
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-038 CURING-OVEN TENDER (chemical)
Tends ovens that cure fuels loaded (cast) into rocket-motor cases: Obser recording instrument charts and dials of timing devices to verify required te peratures and curing-cycle times. Turns valves to switch from automatic-inst ment controls to manual control of steam-supply valves to regulate temperatu
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

553.685-042 DRIER OPERATOR (chemical; pharmaceut.) alternate tles: drum-drier operator; vacuum-drum-drier operator
Tends vacuum drum driers that heat liquid compounds to form caked or po dered chemical products: Connects tube from feed inlet to drum containing l uid to be dried. Turns steam and coolant valves and observes thermometer

regulate temperature of steam-jacketed drum enclosed in vacuum chamber, according to specifications. Starts pump and observes vacuum gauge to maintain prescribed vacuum in chamber. Starts revolving drum that dries liquid as it splashes against heated drum, forming caked or powdered product that is removed from surface of drum by scraper blade. Observes and feels dried product, periodically submits sample for laboratory moisture analysis, and adjusts drying temperature and vacuum if product does not meet plant standards. Records drying time of batch, gauge readings, and amount or weight of materials dried. May set scraper blade at specified distance from drum, using handtools. May fill containers with dried materials, weigh containers, and tag containers for shipment or storage.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

553.685-046 DRIER OPERATOR II (plastic-synth.)
Tends equipment, such as centrifuge and rotary drier, that removes moisture and recovers plastic resin from slurry: Observes gauges, turns valves, and starts pumps to regulate flow of slurry from storage tank to centrifuge. Starts centrifuge to separate resin from slurry and observes flow of partially dried resins into rotary drier. Observes gauges and turns valves to regulate flow of hot air and maintain specified temperature in drier. May tend pneumatic conveyor that carries dried resin into storage silos. May measure level of stored materials in silo, using calibrated plumbline.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-050 DRIER OPERATOR III (chemical) alternate titles: calciner operator; rotary-drier operator
Tends batch or continuous rotary driers that remove moisture from solid chemical materials: Dumps or shovels materials into batch drier chamber, or starts feed conveyors of continuous drier. Starts drying chamber rotating. Admits steam or hot air to drying chamber until specified heat is attained, as indicated by temperature chart recorders and gauges. Opens vacuum valves to withdraw accumulated vapors where materials require drying at subatmospheric pressure. Stops rotation of drying chamber to dump dried materials, or starts discharge conveyor to empty contents of chamber and transfer dried product to storage, packaging, or further processing. May tend auxiliary equipment, such as condensers and vacuum pumps. Records operating data in equipment log, such as temperatures, pressures, drying time, and hourly production. May feel discharged materials for specified dryness. May submit samples to control laboratory for moisture analysis. May regulate drier temperature, and speed of conveyors and rotary chamber, according to knowledge of process and material being dried.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

553.685-054 DRIER OPERATOR IV (chemical) alternate titles: spray drier
Tends spray driers that evaporate water from slurries, forming caked or powdered product: Pumps slurry to atomizer nozzle in drier and regulates spray of slurry as instructed. Observes temperature recorders and adjusts valves, controls, and dampers to heat or cool and direct air through drier to evaporate water or solidify slurry. Observes discharge conveyor for malfunctions or jamming to maintain uninterrupted flow of dried materials to storage. Rakes out accumulated cake or powder remaining in drier, and clears clogged lines, using length of wire. May place empty drums under discharge end of spray tower to be filled with specified amount of powdered emulsifier. May tend auxiliary equipment, such as cyclone filters and scrubbing tower to refine product or recover usable materials.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

553.685-058 DRIER-OPERATOR HELPER (chemical) alternate titles: laborer, glue drying
Assists DRIER OPERATOR (chemical) VI in drying glutinous material, such as gelatin and glue. Starts equipment and turns valves as directed. Moves glutinous material to drier, using handtruck. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

553.685-062 FIRE-HOSE CURER (rubber goods)
Tends steam-heating equipment that cures rubber in jacketed firehose: Lifts precut lengths of specified rubber tubing and braided fabric hose jacket onto table. Dusts rubber tubing with soapstone to prevent tubing from sticking to jacket. Turns crank to wind tubing onto stock wheel. Aligns jacket with mechanical threading device and clamps threading fixture to end of rubber tubing. Starts winch that pulls tubing into jacket. Lifts and clamps ends of jacketed hose to fixtures on steam lines. Presses hose into curing cavities on table that hold hose in flattened position when curing. Observes gauges and turns valve to inject steam into hose at specified temperature and pressure for curing. Places cured hose on storage rack.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-066 FIRER, RETORT (chemical)
Tends burners supplying heat to retorts (reaction vessels) to facilitate heating of materials to produce chemical products: Moves controls to regulate flow of gas or oil to burners to maintain temperature of retorts at specified reading. Cleans and repairs retorts, using handtools, scrapers, brushes, and cleaning agents.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

553.685-070 KETTLE WORKER (soap & rel.)
Tends kettles that boil soap ingredients: Opens valves to admit alkali, fat, tallow, lye, and steam into kettles. Observes temperature gauges and rate of boiling and turns valves to regulate temperatures. Draws samples and delivers them to laboratory. Adds soda and water, according to instructions, to bring mixture to specifications, using scoop and hose. Opens valves to drain off glycerine, water, and sludge. May stir soap solutions with wooden paddle to promote blending.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

553.685-074 LIME-SLUDGE KILN OPERATOR (paper & pulp)
Tends gas- or oil-fired kiln that burns lime sludge to recover lime: Turns panel controls to adjust burner and flow of sludge into kiln according to temperature gauges. Starts conveyor that carries lime from kiln to hopper of slaking machine. May tend washers and filters that remove cooking liquor from sludge before it is burned.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-078 MILLED-RUBBER TENDER (rubber goods; rubber tire)
Tends conveyor, and spraying and drying unit that cools and dries milled rubber stock: Monitors flow of rubber stock as it drops from mixer through batch-off mill onto conveyor. Removes stock adhering to mill rollers with long-handled scraper and frees stock if it piles up on conveyor. Adjusts conveyor speed and turns valves to regulate water spray and airflow that cools and dries stock.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-082 OVEN TENDER (paint & varnish) alternate titles: baker, paint; enamel burner; kiln tender
Tends oven that bakes freshly painted furniture parts to harden finish: Starts equipment to heat oven to prescribed temperature. Pushes truckload of dipped or sprayed pieces into heated oven, hangs pieces on hooks suspended from overhead trolley, or places pieces on conveyor belt and regulates speed of belt through oven in accordance with temperature of oven and size of pieces. Allows pieces to bake for specified length of time and removes finished articles from oven.
GOE: 06.04.21 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

553.685-086 PIGMENT FURNACE TENDER (chemical)
Tends kiln or furnace that makes pigments from specified chemical ingredients or develops specified colors in pigments or metallic powders for use in making paints, enamels, and varnishes: Weighs or measures specified chemical ingredients and dumps them into furnace hopper, conveyor, blending, pulverizing and sifting machine hoppers, or into clay saggers. Opens chute on hopper or conveyor, or shovels prepared charge into furnace. Positions specified temperature cam into automatic heat control unit, or turns dials to specified setting to regulate temperature, temperature changes, and heating and cooling cycles. Observes control panel of furnace to verify standard functioning of preset furnace. Opens discharge chute, or shovels pigment or powder from furnace. May clean and adjust burners on gas-fired furnaces. May verify color of pigments or powders to standard samples or color chart.
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

553.685-090 RABBLE-FURNACE TENDER (chemical)
Tends furnace and auxiliary equipment that heat carbon black to reduce sulfur content by starting feed and discharge conveyors, opening fuel and water valves, and lighting burners with rabble (torch on end of iron rod). May tend furnace that dries carbon into granules preparatory to bagging and be designated Granular Operator (chemical).
GOE: 06.04.19 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

553.685-094 ROTARY-FURNACE TENDER (chemical)
Tends rotary furnace that roasts sulfur or other materials to liberate gases for use in processing chemical products: Weighs materials to be roasted and scoops or dumps specified quantity into furnace hopper. Starts revolution of furnace, consisting of hollow cylinder mounted between power-driven rollers. Observes thermometer and turns fuel or steam valves to maintain specified temperature in furnace and efficient roasting of materials. Shuts down furnace after roasting is completed and assists other workers in cleaning and preparing furnace for subsequent operation. May adjust and repair furnace, using handtools. When roasting sulfur for use in production of sulfuric acid, is designated Sulfur Burner (chemical).
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

553.685-098 SOAP-DRIER OPERATOR (soap & rel.) alternate titles: drier-machine hand; flake drier; roll-machine attendant
Tends equipment and machinery that converts viscous soap into flakes and removes excess moisture from flakes: Turns valves to admit refrigerated water into rollers to chill them to specified temperature to harden soap. Opens valve to allow viscous soap to flow from crutcher machine into chamber equipped with chilling rollers. Starts rollers to press soap into sheets. Adjusts flaking knives that cut sheets of soap into flakes. Turns valve to regulate flow of flakes into drier. Turns valves to admit steam to drying cylinders and oven jackets to heat drier to specified temperature. Removes sample of dried flakes and tests for moisture content, using moisture testing apparatus. Adjusts temperatures accordingly. Opens valve to discharge dried flakes onto conveyor belt leading to storage bins. May sharpen flaking knives, using hand file. May tend equipment to convert liquid insecticide into flakes and be designated Flaker Operator (chemical).
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

553.685-102 TIRE MOLDER (rubber tire) alternate titles: curing finisher; retread-mold operator
Tends retreading mold that vulcanizes camelback (raw rubber tread) onto tire casing and molds tread design: Places air bag of specified size inside tire, using

tire-spreading device, and clamps tire into mold. Inflates air bag to specified pressure and heats mold to specified temperature to cook and mold tread. Removes tire after predetermined time and trims loose ends from molded tread, using knife.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

553.685-106 VACUUM-DRIER TENDER (chemical) alternate titles: shelf-drier operator
Tends vacuum driers that heat chemical solids to remove water or other liquids: Observes temperature indicators and vacuum gauges and turns steam valves and sets dials to regulate temperature and vacuum pressure in drier as specified. Observes drying material in glass viewer of equipment for conformance with specifications. Collects samples of material for laboratory moisture test. Records gauge readings, type of material dried, weight, and drying time.
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

553.685-110 WAX-POT TENDER (foundry) alternate titles: melter
Tends melting pots in which wax is melted for use in lost wax casting process: Breaks slabs of wax and deposits them in melting pots. Adjusts thermostat to maintain specified temperature of liquid wax. Dips wax from melting pot, using hand ladle, and pours it into receiving pot. May fill cylinders of wax-injection machines with liquid wax and place cylinders in aging oven for specified period of time.
GOE: 06.04.32 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

553.685-114 CADMIUM BURNER (chemical)
Tends furnace and auxiliary equipment that heat cadmium to produce cadmium oxide: Turns handwheel to tilt and lower mouth of crucible for initial loading, and dumps cadmium balls into crucible until scale indicator reaches specified weight. Returns crucible to upright position and turns control to activate automatic pilot that fires furnace. Positions empty drum under oxide collector discharge outlet, clamps discharge cover over drum, and turns switch that starts flow of cadmium oxide from collector into drum. Periodically scrapes molten accumulation from mouth of crucible, using metal rod. Dumps additonal cadmium balls into crucible when indicator falls below prescribed weight, using pipe carrier. Turns switch to stop flow of cadmium oxide when drum is filled. Removes drum from under discharge cover, and closes drum with lid and sealing collar. Weighs drum, records weight on shipping tag, and attaches tag to sealing collar. Periodically scrapes and chips accumulations of cadmium oxide from floor and from crucibles not in use. Sifts scrapings, weighs, and stores solids. Maintains production logs.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 86

553.685-118 DRIER OPERATOR VI (chemical) alternate titles: glue-drier operator; pearl-glue drier
Tends equipment that dries glutinous material, such as gelatin and glue, by either of following methods: (1) Starts pumps to admit glutinous material through coolers to congeal it and through extruders to form noodles. Starts conveyor that moves noodles through series of drying compartments and turns on heaters and fans in compartments. Feels noodles for moisture content and regulates speed of equipment to ensure prescribed degree of dryness. Reads hydrometer to detect excessive moisture in drying compartments and turns on dehumidifier when necessary. (2) Transfers containers of pearl glue (granular forms) or moves frames or trays of sheets of glue or gelatin into drying compartment, using handtruck. Starts heaters and fans in heating compartment. Feels glutinous material for moisture content and regulates temperature in drying compartment when necessary. May tend equipment that spreads glutinous material into sheets for dyring [SPREADING-MACHINE OPERATOR (chemical) 559.685-170].
GOE: 06.04.19 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

553.686-010 BONE-CHAR OPERATOR (chemical)
Unloads furnace in which ground bones are charred to produce boneblack (animal charcoal): Opens and closes slide gate on bone-char furnace to fill bucket, mounted on dolly, with boneblack. Tilts bucket, assisted by other workers, to discharge contents onto cooling floor. Spreads boneblack over floor to cool, using rake. Shovels cooled boneblack onto conveyor for transfer to storage tanks. May sprinkle water onto material to facilitate cooling. May shovel ground bones into furnace or retort and dump charred product onto storage conveyor, using wheelbarrow, and be designated Retort Feeder, Ground Bone (chemical).
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.686-014 CD-MIXER HELPER (rubber reclaim.) alternate titles: pan-devulcanizer helper
Performs following duties in devulcanizing ground scrap rubber in steam heater: Places pans beside mixer and loads pans with scrap rubber compound. Loads pans onto heater car by hand or hoist and pushes car into heater. Pulls heater cars out of heaters, using electric winch, and dumps or shovels devulcanized rubber into storage bins.
GOE: 06.04.11 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

553.686-018 CURING-PRESS OPERATOR (rubber tire)
Feeds and off bears machines that cure (vulcanize) tires, performing any of following duties: Removes foreign matter from molds, using airhose, and sprays molds with dope solution to prevent tire from sticking. Lifts tires from saddle trucks to position them in molds. Pushes switch to inflate air bag to expand tire into closing mold. Lifts cured tires from mold at end of cycle and places tires on inflating unit to preserve tire shape during cooling period. Lift from inflating unit at end of cooling cycle and loads them onto overhea veyor.
GOE: 06.04.13 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

553.686-022 DECKHAND (chemical)
Dumps oleoresin into hopper of vats that melt resin preparatory to disti into turpentine and rosin: Rolls filled barrels of oleoresin onto scales weighed and rolls weighed barrels to storage area above vats. Upends to dump resin into hopper of melting vats and pushes resin near steam vats with stick to facilitate melting.
GOE: 06.04.11 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

553.686-026 DRIER OPERATOR V (chemical)
Feeds wet smokeless powder into equipment that dries powder and re process solvents, such as acetone, ether, and alcohol: Observes gauges to tain that temperature of water is within specified limits. Removes filled c ers of dried powder from equipment, using handtruck.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

553.686-030 DRIER-OPERATOR HELPER (rubber reclaim.) altern tles: dry-room helper
Performs following duties to remove moisture from devulcanized scra ber: Cleans adhering scrap stock from drier and shaker screens, using han and airhose. Dumps bags of soapstone into hopper of mechanical shak sifts soapstone to prevent tacky surfaces of stock from adhering to s Opens and closes discharge chutes of drier as instructed. May move dried to storage bins on handtrucks.
GOE: 06.04.13 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

553.686-034 FRAME FEEDER (chemical)
Positions gelatin-drying frames on conveyor below gelatin-spreading m to receive sheets of congealed gelatin discharged by machine. Slides frame to elevator which stacks frames on truck. Pushes loaded truck to alley.
GOE: 06.04.34 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

553.686-038 ROTARY-DRIER FEEDER (chemical) alternate calciner feeder
Feeds crystalline or granular materials to conveyor system or feed hop rotary driers for drying: Starts feed conveyor and shovels material onto m belt, or adjusts controls of conveyor or feed hopper to regulate automati according to instructions from equipment operator. May be designated a ing to materials fed as Soda-Drier Feeder (chemical); Sulfur Feeder (chem
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

553.686-042 VARNISH-MAKER HELPER (paint & varnish)
Assists VARNISH MAKER (paint & varnish) in manufacturing varnis forming any combination of following duties: Transfers ingredients, su gums, resin, turpentine, and oils from storage to work area, using han Weighs specified amounts of dry materials and shovels or dumps them in tles or vessels. Measures liquids in receptacle and pours them into ket supply tanks. Mixes ingredients in kettles with paddle. Cleans kettles and equipment, using high-pressure hose, solvents, and brushes. Performs oth ties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

553.687-010 DRIER HELPER (chemical)
Performs variety of manual duties in drying and storing chemical mat as directed: Turns valves to fill sample bottles for laboratory testing. In product through sight glasses at various stages of drying process to detec functions. Inspects equipment and piping for leaks or malfunctions. N equipment operator or supervisor of unusual conditions. Lowers gauge tap storage towers to facilitate inventory and production control. Records readings on operating record. Cleans equipment, using hose and water. M designated according to type of drier as Spray-Drier-Operator Helper (c cal).
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

553.687-014 FURNACE HELPER (chemical)
Observes flow of sawdust on conveyors leading to carbon-producing f and adjusts feed gates as necessary to maintain uniform flow. Positions s cans under carbon-discharge spouts of furnace tubes and opens spouts bottles for laboratory analysis, timing sampling with interval timer. Weig labels containers. Clears jams in feed and discharge conveyors, using rod.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

554 COATING, CALENDERING, LAMINATING, FINISHING OCCUPATIONS

This group includes occupations concerned with imparting a desired or ensuring uniform thickness in materials by pressure applied with r forming or pressing materials into thin sheets or layers and then adding to other materials; covering materials and objects with a layer of another rial for such purposes as preserving or decorating them; adding a desire face effect to materials and objects; and removing blemishes from them.

554.137-010 FINISHING SUPERVISOR, PLASTIC SHEETS (pl synth.)
Supervises and coordinates activities of workers engaged in polishin faces of plastic sheets to remove scratches, masking sheets preparatory to

ment, and weighing and tagging sheets. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

554.137-014 SUPERVISOR, COATING (plastic-synth.)

Supervises and coordinates activities of workers engaged in operating equipment to coat cellophane with solvents, resins, plasticizers, or wax to moistureproof cellophane. Directs workers in maintenance and cleaning of coating towers, bath mixers, driers, and solvent recovery equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

554.362-010 CALENDER OPERATOR (rubber goods; rubber tire) alternate titles: spreader machine tender

Operates machine, alone or as member of crew, to coat, impregnate, imprint, or form rubber sheeting or rubberized fabric: Turns steam valves to regulate heat or rolls, judging heat by action of rubber and by feeling rolls with hand. Turns handwheels or capstan bar to adjust distance between rolls. Verifies thickness of calendered material, using gauges. Threads fabric or rubber sheeting around and between rollers, through coating reservoirs or water coolant tanks, and onto pickup reel core or takeoff conveyor. Adjusts knives that trim selvage or cut material to specified width by moving knives along bar and turning setscrews, or replaces numbered rack (set) of knives, using wrenches. Adjusts weights on arms of holders so knives will press against rolls and cut through thickness of material processed. Observes calendered material for defects, such as bubbles, lumps, streaks, and pitting, and marks defects. May direct other workers who feed stock, change takeup reels, take off and inspect stamped parts, and place them in books, boards, and frames. May be designated according to material calendered as Calender Operator, Fabric (rubber goods; rubber tire); Calender Operator, Gum Stock (rubber goods; rubber tire).
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

554.382-010 COATER (pharmaceut.) alternate titles: pill coater; tablet coater

Controls battery of coating machines that apply coatings to pharmaceutical tablets to flavor, color, preserve, add medication, or control disintegration time: Dumps uncoated tablets into rotary pans of machines and starts machine. Pours measured amounts of liquid coatings, such as medicated syrup, dye, and gelatin, onto tablets to form base or successive coats according to formula or production order. When applying enteric coating to control disintegration, pours enteric solution over tablets prior to subcoating. Sprinkles dusting powder onto tablets and stirs them to prevent tablets from sticking together and to produce uniform coating. Examines tablets for defects, such as chips and discoloration, and scrapes coating with fingernail to ascertain dryness. Measures sample tablets, using caliper or micrometer, and weighs them on balance scale to determine adherence to weight and coating-thickness specifications. Dumps coated tablets and measured amount of liquid wax into canvas-lined pan and starts pan revolving to give tablets final glossy coating.
GOE: 06.02.21 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

554.382-014 PLASTICS-SPREADING-MACHINE OPERATOR (plastic-synth.)

Operates machinery to spread synthetic resins and glass fibers over continuous sheet of plastics film to prepare materials for subsequent molding: Moves controls to set and regulate width of sheet and to adjust line speeds with flow rate of materials. Moves plungers to start flow of synthetic resin solution through metering device (material buckets). Observes gauges and starts pumps and degassing system on supply tanks to regulate pressure. Inserts thermometer in synthetic resin to verify temperature. Observes tachometers, flowmeters, and gauges to verify specified process conditions.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

554.384-010 DYER (chemical)

Mixes coloring solution in tank or kettle, and dyes pearl and plastic buttons to match color of standard button or fabric sample: Weighs powdered dyestuffs according to formula. Pours powder into mixing bowl or pan, adds hot water, and stirs with spoon to form paste. Turns water and steam valves to fill dye kettle to indicated level, and stirs in paste, using paddle or spoon. Immerses wire basket containing buttons in solution. Withdraws sample buttons from solution and compares with standard button or fabric sample, to determine if color matches. Lifts basket from solution when color match is attained, immerses basket in boiling water to rinse excess dye from buttons, and places basket in barrel of centrifugal drying machine. Moves switch to start dryer that spins excess dye from buttons.
GOE: 06.02.32 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

554.485-010 BUCKLE-STRAP-DRUM OPERATOR (rubber goods)

Tends machine that coats uncured rubber or rubber-coated fabric strips and winds them on drum to make straps for rubber footwear: Computes number and kind of books required, and keeps production chart. Places strip at back of drum, threads end through guides and cement-filled reservoir, and inserts end in groove of drum to secure it. Turns handwheel to regulate machine speed and starts machine that winds strip onto drum so that each turn abuts and adheres to edge of one previously wound. Stops machine when drum is filled and pulls knife along drum groove and across wound strip to form sheet of strips. Pulls sheet from drum onto cutting table, using stick, and cuts sheets into strips of specified length with knife, using triangular cutting bar as guide. Lifts rows of cut strips with stick and places them in book.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

554.485-014 STRAP-FOLDING-MACHINE OPERATOR (rubber goods)

Tends machines that automatically fold uncured rubber strip or coated friction tape over parallel reinforcing cords to form strap material to which buckles, eyelets, or snaps are attached for use on rubber footwear: Calculates from work orders width, length, and quantity of stock to be made and prepares production schedule. Selects cord, strip or tape, and folding attachment according to work ticket. Mounts spools of cord on spindles and roll of strip or tape on arbor. Attaches folder to machine bracket by turning thumbscrews or using screwdriver. Cuts end of tape on bias, using scissors, and threads tip and cord through folder. Threads folded strap through paired rollers that press down folded edges. Positions carton at discharge end, starts machine, and runs strap material into carton. May fold and wind strip into rolls for cutting into straps by STRAP-CUTTING-MACHINE OPERATOR (rubber goods), using pedal-operated machine.
GOE: 06.04.07 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

554.585-010 CATHODE MAKER (chemical)

Tends tanks and related equipment that coats cathode screens with asbestos for use in electrolytic cells: Opens valve to fill cathode tank with caustic liquor. Weighs out prescribed quantity of asbestos and dumps it into tank. Starts air compressor and opens valve to force asbestos and cell liquor to mixing tank and return it to cathode tank after agitation for specified time. Draws sample of resulting slurry and determines specific gravity, using hydrometer. Positions cathode screen over cathode tank, using crane. Connects vacuum hose to cathode and lowers cathode into tank for asbestos coating, using hoist. Observes vacuum gauge to determine number of dips or immersion time necessary to apply asbestos coating of specified thickness to cathode. Applies asbestos tape to secure cathode rim. Transfers coated cathode to drying area, using crane. Records number of cathodes coated, immersion and drying time, and quantity of materials used. May tin cathode bars, using tinning compound. May cut asbestos paper to size and cover screens and plates with new linings.
GOE: 06.04.21 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

554.585-014 COATER OPERATOR (plastic-synth.) alternate titles: dipping-machine operator; impregnating-machine operator

Tends machine that coats continuous sheet of plastic material with synthetic resin solutions to impart special properties, such as heat resistance, impact strength, or waterproofing: Loads roll of material onto unwind stand, using overhead hoist. Threads material through rollers of coating machine, drier unit, and onto winding machine. Sets controls to regulate speed of material feed and amount of coating solution. Sets tension on material by adjusting speed of unwind and windup rolls. Turns valves to regulate steam or turns on infrared lamps to control drier temperature and moisture. Examines material passing through drier and onto windup machine for wrinkles or breaks. Patches breaks, using glue. Maintains log of machine running time and number of rolls processed.
GOE: 06.04.21 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 77

554.586-010 FINISHER (plastic-synth.)

Performs any combination of following duties involved in final processing of plastics sheets: Removes plastics sheets from overhead monorail conveyor, weighs them, and replaces them on conveyor. Moves sheets to various locations, using handtruck. Cuts masking paper to size. Mixes adhesive and transfers it to reservoir of masking machine. Copies identification data, such as size, thickness, and weight on sheets or labels.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

554.587-010 ROLL INSPECTOR (plastic-synth.) alternate titles: slit-roll inspector

Examines finished rolls of cellophane for defects and verifies accuracy of roll labels: Observes and feels rolls passing on conveyor to detect flaws, such as wrinkles, streaks, or tears on edges. Measures width and diameter of rolls, using tape rule. Compares identification labels with specifications to prevent errors. Pushes rejected rolls onto table. Records number of rolls processed and number of rolls rejected.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

554.662-010 CALENDER OPERATOR, FOUR-ROLL (plastic prod.; rubber goods; rubber tire)

Operates four-roll calender to coat fabric with rubber or produce plastic sheeting and roll sheets to specified thickness: Adjusts automatic control and observes temperature dial to heat calender rolls to specified temperature. Starts machine and adjusts conveyor speed to regulate feeding of stock. Turns adjustment wheels of rollers to specified settings to stretch fabric for calendering. Verifies thickness and width of calendered stock with gauge and ruler. Positions knife to trim edge of calendered fabric. Interprets work orders, assigns duties, and informs crew of processing specifications. May operate equipment from control board.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

554.665-010 CALENDER-WIND-UP TENDER (rubber goods; rubber tire) alternate titles: calender helper; roll changer

Tends *windup rack* on *four-roll calender* that winds calendered fabric onto liner rolls: Starts *festoons* that accumulate fabric during roll change, and stops windup rack. Cuts fabric with scissors between machine and full roll and guides fabric into roll on auxiliary rack with aid of CALENDER-WIND-UP HELPER

(rubber goods; rubber tire). Stops festoons, starts windup rack, and moves tension and speed levers to wind new roll. Places full roll onto scale, using hoist. Reads yardage gauge and compares roll weight with standard on yardage chart for conformance to specifications. Notifies CALENDER OPERATOR, FOUR-ROLL (plastic prod.; rubber goods; rubber tire) of weight discrepancies or fabric defects, such as wrinkles and spread cords. May run identification strings into calendered stock as windup proceeds.
GOE: 06.04.07 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

554.665-014 LAMINATING-MACHINE TENDER (rubber goods) alternate titles: doubling-machine operator

Tends machine that combines two continuous sheets of material, such as rubber, sponge rubber, fabric, felt, or fleece, working as team member: Transfers rolls of material to and from machine, using handtruck, and lifts or hoists rolls into cradles, using chain hoist. Threads ends of cemented and noncemented materials over feed rollers, between combining rollers, and onto single *takeup roll*. Turns wheels or capstan bolts to set pressure of combining rolls by trial and error to produce complete adhesion of both materials. Starts machine and moves lever to engage clutch and start material winding. Leans against one rotating roll of material to control tension and pulls or feeds edge to align it with other roll, while other worker controls tension and aligns material on opposite end of roll. Stops winding when either feeder roll is empty and cuts off other roll of material to match length, using scissors. Tapes ends of unused material, reads yardage indicator, and marks amount left on roll.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

554.682-010 CALENDER-LET-OFF OPERATOR (rubber goods; rubber tire)

Operates letoff, dipping, and drying units of *four-roll calender* to bond rubber to fabric: Positions fabric roll in letoff rack, using hoist, and starts *festoon*. Splices undipped roll to end of roll in process by inserting gum strip between ends and aligning splice in vulcanizer to cure splice. Adjusts guides and pretension rolls to maintain specified width of fabric during dip process. Moves controls on central switch panel to adjust dryer temperature, solution level in dip tank, and festoon speed. Notifies CALENDER OPERATOR, FOUR-ROLL (plastic prod.; rubber goods; rubber tire) of material defects or machine malfunction. May mix ingredients in agitator drum according to written specifications to make dip solutions. When operating dip unit independently of calender, tends windup rack [CALENDER-WIND-UP TENDER (rubber goods; rubber tire)] and is designated Dip-Unit Operator (rubber goods; rubber tire).
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

554.682-014 MASKING-MACHINE OPERATOR (plastic-synth.)

Operates machine to apply cement to masking paper and press coated paper onto surfaces of plastics sheets to provide protection during final processing and shipping: Positions paper roll on mandrel, using chain hoist. Threads paper through machine. Turns valves to fill hoppers with cement from reservoir. Moves levers to set paper cutters and to adjust pressure on squeeze rolls to accommodate size and thickness of plastics sheet. Turns screws to set blades that control amount of cement applied to paper and verifies position of blades, using feeler gauge. Adjusts tension and speed controls to eliminate wrinkling and excessive coating. Maintains production records.
GOE: 06.04.38 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

554.682-018 ROLL OPERATOR (plastic-synth.) alternate titles: calender-roll operator; mill-roll operator

Operates roll mill to homogenize and roll plastic compounds into sheeting or slab form: Pushes button to transfer plastic from mixing machine to revolving heated mill rolls. Cuts material with knife and feeds material back through rolls to obtain sheet of specified color, consistency, and thickness. Adjusts slitting knives or starts automatic scraper to strip sheet from rolls. Guides material onto conveyor belt. Observes gauges or feels material and turns steam and water valves to control temperature of rolls. Cleans rolls to prevent contamination of stocks, using wire brush, hand scraper, solvents, and airhose. May adjust roll clearance with hand wrenches.
GOE: 06.02.13 STRENGTH: M GED: R3 M1 L1 SVP: 5 DLU: 77

554.682-022 ROOFING-MACHINE OPERATOR (build. mat., nec)

Operates machine to coat continuous rolls of roofing felt with asphalt, colored slate granules, powdered mica, or tar, to make roll roofing or shingles: Threads felt through or around series of coating rollers. Pulls felt through rollers and adjusts tension. Sets machine controls to gradually increase speed of rollers to specified operating speeds, or pulls levers and turns valves and wheels to synchronize machine speed and flow of coating material. Observes gauge and adjusts rheostat to regulate temperature of coating material in reservoir. Examines felt as it emerges from rollers to ensure that coating material is applied according to specifications. May feel moving felt to determine whether granules are being deposited uniformly and are adhering as specified. May be designated according to type of coating applied as Coater, Asphalt (nonmet. min.); Coater, Slate (nonmet. min.).
GOE: 06.02.18 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

554.684-010 CAUSTIC OPERATOR (plastic-synth.)

Immerses plastics sheets into tank containing heated caustic solution to impart finish to sheet surface: Places sheets into tank. Tests water temperature and solution concentration, using thermometer and hydrometer. Turns steam valve to regulate temperature and adds water or caustic solution to maintain specified concentration of solution. Removes sheets from tank after specified time and places them in rinse tub or under water spray. Stacks rinsed sheets on abso cardboard preparatory to drying and inspection.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

554.684-014 FOAM DISPENSER (rubber goods)

Sprays padding solution (liquid rubber foam) in formed skins (shaped p sheets) with hose to produce automotive padded products, such as dashb and door panels: Positions cardboard inserts at defroster locations and ig cluster to prevent buckling during cure. Positions metal reinforcement p at clusters and edges of product to be cured into skin. Dispenses soluti specified areas of skin and pours solution from cardboard containers a clusters and metal panels to prevent overflow.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

554.685-010 BULK-SEALER OPERATOR (plastic-synth.)

Tends automatic, radiant-heat bulk sealer that bonds plastic sheets for ricating bags: Places lifts (two sheets of plastic film separated by single of paper) alternated with asbestos pads on piston of sealer. Straightens arranged sheets, using wooden paddle. Starts sealer in which plastic fi bonded as piston slowly rises through heated chamber. Inspects sampl bonded sheets to detect machine malfunction.
GOE: 06.04.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

554.685-014 COATING-AND-BAKING OPERATOR (any industry)

Tends equipment that automatically applies and bakes enamel or other ing onto fabricated steel products: Fills machine reservoir with coating solu such as lacquer, enamel, or varnish. Starts conveyor or feed rolls that products to be coated and baked, through equipment. Sets heating unit at s fied temperature and starts pumps and exhaust fans. Feeds products onto veyor or between feed rolls that apply coating. Examines products emer from baking unit for conformance to coating thickness and appearance s fications. May mix coating to prescribed viscosity, using viscometer. gauge thickness of coating to determine adherence to quality control spec tions, using dial indicator. May be designated according to equipment or p ess employed as Flash-Oven Operator (elec. equip.); Operator, Coating Fur (cutlery-hrdwr.); or according to product coated as Coating-Machine Oper Metal Tags And Signs (fabrication, nec).
GOE: 06.04.21 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

554.685-018 COMBINING-MACHINE OPERATOR (plastic-synth.)

Tends combining-roll machine that presses and impregnates synthetic r and glass fibers between continuous sheets of plastics film to form homoge sheeting of specified thickness preparatory to molding operations: Turns c to adjust opening between rolls to form sheeting of specified thickness. Ver width of opening with feeler gauge. Threads plastics film through rolls. Pre switch to start machine and observes flow of materials through machine to tect foreign particles and machine malfunctions. Moves lever to adjust ten on sheeting and to synchronize speed of sheeting with speed of belt.
GOE: 06.04.20 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

554.685-022 LINER REROLL TENDER (rubber goods; rubber tire ternate titles: reroll tender; wrapper rewinder

Tends machine that cleans, smooths, repairs, and rerolls fabric liners reuse in winding uncured rubber and fabric materials, calendered rubber or berized fabric: Positions liner roll in letoff bracket manually or by use of n Starts machine and guides liner through rollers to ensure eveness of liner removal of wrinkles. Examines liner for adhering rubber particles and areas. Scrapes rubber particles from liner with handtool. Sews additional fa onto liners or repairs defective areas, using sewing machine. May verify we and length of roll, using scale and yardage gauge.
GOE: 06.04.07 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

554.685-026 SIZING-MACHINE OPERATOR (nonmet. min.)

Tends machine that coats cloth, fiber, or paper with glue or other adhe to prepare material for coating of abrasive: Starts machine and feeds pr blanks into machine, or mounts roll of base material on machine spindles automatic feed through machine. Pours liquid adhesive into container on chine.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

554.685-030 LAMINATOR (wood prod., nec)

Tends laminating machine that bonds decorative material, such as plastic paper, to face of hardboard panels: Conveys rolls of materials specified in w order from storage area to laminating machine, using forklift truck. Positi roll on machine carriage, using chain hoist. Pulls end of material from roll o takeup rollers of machine and turns handwheel that moves carriage to align terial with panels. Turns dials and moves levers to set machine roller spe roller pressure, and heating unit temperature, following processing specifi tions. Turns valve to replenish glue supply. Depresses buttons to start machi Inspects and measures first panels discharged from machine to verify corr alignment of bonded material on panel, using tape measure. Adjusts contr to correct machine operations such as speed of machine units. Severs mate between laminated panels, using cutter, to free panels discharging onto off be ing conveyor. Refills glue reservoir as required. Performs routine maintenanc
GOE: 06.04.34 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 86

554.685-034 PHOTORESIST LAMINATOR, PRINTED CIRCU BOARD (electron. comp.) alternate titles: hot roll laminat laminating machine tender

Tends machine that laminates dry photoresist film to surfaces of panels us in manufacturing printed circuit boards (PCB's): Mounts rolls of photores

film and plastic protective film on machine spindles. Threads film through machine rollers and secures film to takeup spindles. Presses button to activate machine. Adjusts controls to regulate speed, temperature, and pressure of laminating rollers. Moves levers and adjusts controls to align panels with edge of film. Feeds panels into roller, or positions panels on conveyor that feeds panels into laminating machine. Observes lamination process, monitors speed and temperature gauges, and adjusts controls to ensure compliance with standards. Removes laminated panels from machine. Cuts excess photoresist and protective plastic film from panel edges, using knife. May tend machine that scrubs, cleans, and dries PCB panels prior to laminating process [SCRUBBER MACHINE TENDER (electron. comp.) 599.685-134]. May examine laminated panels for defects.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 89

554.686-010 CALENDER FEEDER (rubber goods)
Feeds milled rubber stock into rolls of calendering machine to maintain continuous supply: Lifts pig (roll) of rubber stock from warmup mill conveyor and pushes it between horizontal rotating rolls until stock is drawn between and rolled around calender rolls. Turns wheels or capstan bolts to adjust distance between rolls to produce sheeting of specified thickness. May mount roll of backing material, such as sponge rubber, insole mixture, or cloth fabric, in cradle and thread it through rolls for coating with rubber.
GOE: 06.04.13 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

554.686-014 CALENDER-LET-OFF HELPER (rubber goods; rubber tire)
Positions fabric rolls and string spools on *letoff rack* and removes empty roll shells from calender machine. Inserts ends of fabric into hot press to splice them. Conveys fabric rolls to and from storage, calender, and production areas, using electric crane hoist or forklift. Cleans dip tank.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

554.686-018 CALENDER-OPERATOR HELPER (rubber goods; rubber tire) alternate titles: liner-roll changer; rubber-calender helper; wind-up operator
Performs any of following duties at calendering machine to facilitate coating, imprinting, or forming rubber sheeting or rubberized fabric: Changes fabric rolls and roll shells, using overhead hoist, on *letoff racks* and *windup racks*. Threads material through machine. Observes operation to detect faulty calendering. Sets yardage counter. Turns handwheels, moves lever, or presses buttons on control panel to adjust sheeting tension and windup speed. Prepares and attaches identification tag to calendered roll. May splice uncoated roll to end of roll in process inserting gum strip between ends and vulcanizing in bar splice press. May read yardage gauge and compare weight for conformance to specifications. May relieve CALENDER OPERATOR (rubber goods; rubber tire). Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

554.686-022 CALENDER-WIND-UP HELPER (rubber goods; rubber tire)
Positions liner rolls on windup rack and lowers full calender rolls to floor, using hoist. Cuts roll and starts fabric into liner rolls. Trims ragged fabric edges, using scissors. Examines fabric for wrinkles or other defects and tags finished rolls to show weight, yardage, and stock type.
GOE: 06.04.29 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

554.687-010 SPREADER (plastic-synth.) alternate titles: impregnator
Impregnates fiberglass matting and other fabric materials with resin compounds for use in laminating plastic products: Places cellophane or wax paper on worktable and spreads resin compounds over sheet evenly with hand spreader. Places precut fabric matting on resin and rolls it with wire-mesh-covered roller to saturate matting. May weigh specified quantities of plastics ingredients on scale and dump them into containers for use in molding plastic products. May pour premixed resins into saturating tank and thread fabric through rollers of impregnating machine to prepare material for laminating. May cut specified patterns from impregnated fabric, using template, hand shears, and knife.
GOE: 06.04.27 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

555 GRINDING AND CRUSHING OCCUPATIONS

This group includes occupations concerned with reducing materials to smaller particles, such as granules, grits, powder, or paste, by means of compression, smashing, cutting, or a combination of these.

555.382-010 PULVERIZER-MILL OPERATOR (rubber goods; rubber reclaim.)
Operates machine to prechop and pulverize vulcanized scrap rubber for reuse: Transfers material between storage and work areas on pallet, using forklift truck. Starts prechopper, pulverizer, and connecting conveyor. Places box on scale under discharge hopper of pulverizer to load ground material to specified weight. Loads scrap into prechop hopper, selecting it according to specified type, compound, and color. Examines scrap while loading and removes foreign matter, such as metal, cloth, and plastic. Observes thermometers and dials for room and exhaust temperatures and amperage used. Adjusts speed of conveyor feed to pulverizer to avoid overloading and prevent overheating and burning material. Observes temperature indicators on control panel of water cooling system and air vents, turns valve to adjust water flow, and opens ports to increase airflow to cool machine jacket or grinding stock. Examines ground rubber for size and adjusts gap of discharge opening to prevent rubber from passing until ground to desired fineness. Observes magnetic grid at mouth of pulverizer that screens pellets to remove any metal missed on visual inspection. Removes screen and wipes off accumulated metal, using cloth. Folds and tapes filled box top, and marks weight and compound number on box. Posts amount and type of ground rubber processed to production record.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

555.565-010 MILL ATTENDANT I (chemical)
Tends system of grinders, crushers, conveyors, vibrating screens, and elevators in salt mill that crush and screen rock salt extracted from mine: Moves switches, levers, and other controls on instrument panels to start and stop equipment. Reads gauges to verify specified operation of equipment. Starts and stops various conveyors to control direction of flow, to store salt of specified size in designated storage bins. Observes and listens to operation of equipment and reports malfunctions to supervisor.
GOE: 05.12.07 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

555.585-010 CUTTER OPERATOR (plastic-synth.)
Tends machine that shreds woodpulp to specified size for use as filler in producing plastics materials: Inserts mandrel through core of woodpulp roll and mounts roll on unreeling stand, using overhead hoist. Threads sheet into machine feed rolls and adjusts cutting blade, using handtools. Starts machine and observes discharge of shredded pulp into conveyor system or automatic weigh bin to ascertain conformity to specifications. Cleans dust from equipment, using airhose or brush. Records weight and number of rolls cut. May adjust braking device to prevent bulking or tearing of sheet.
GOE: 06.04.03 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

555.665-010 SHREDDER TENDER (chemical)
Tends machine that chops and shreds animal stock (skins, splits, fleshings, and trimmings) used in making glue. Lifts stock from table, places stock on conveyor leading into machine and starts machine. Greases and oils machine. May signal other workers to load stock onto conveyor.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

555.682-010 MILLER II (chemical)
Operates mixing, screening, and milling machines to process salt: Installs specified size screens and rollers in milling machine, using handtools to obtain salt crystals of designated sizes. Opens chute to admit salt into milling machine and starts machine. Brushes oversized salt from vibrating screen to prevent clogging. May be designated according to salt product being milled as Miller, Kiln-Dried Salt (chemical).
GOE: 06.02.11 STRENGTH: H GED: R3 M1 L1 SVP: 7 DLU: 77

555.682-014 ROLLER-MILL OPERATOR (paint & varnish) alternate titles: paint grinder, roller mill
Operates mill equipped with rollers to grind paste of premixed ingredients, such as pigments, resins, solvents, oils, and plasticizers, for use in paint, lacquer, and ink: Moves controls to set specified roll spacing and pressure. Starts flow of water through roll cooling system to prevent ignition or discoloration of paste. Adjusts feed gate to regulate flow of paste from hopper onto feeder roll. Secures scraper blade to takeoff roll and bolts chute to scraper blade, allowing paste to flow from roll into thinning and storage tanks or scrapes paste from mill apron into container, using spatula. Tests paste sample for fineness, using grind gauge, or sends sample to laboratory for analysis. Adjusts roll pressure controls to regulate flow of paste during grinding. Cleans equipment, using scrapers and solvents. May pump specified types and quantities of thinners into thinning tank. May blend specified extenders (chemicals that increase bulk of paint) with paste, using portable mixer.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

555.682-018 SAND-MILL GRINDER (paint & varnish)
Operates sand mill that grinds premixed paint ingredients to disperse solid ingredients in vehicle: Starts mixer to combine ingredients settled in portable tub. Hangs hose in tub and attaches opposite end to sand mill intake. Turns valve to circulate cooling water through jacket to prevent mill overheating. Presses buttons to start mill agitator and pump. Draws paste sample to test for dispersion, using grind gauge, and adjusts pump speed as indicated by test results. Turns lever to open gate and starts pump to discharge ground mixture from machine. Washes residue from filter screen, using brush and solvent. Starts pump to clean sand mill and hose system, using solvent.
GOE: 06.02.11 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 77

555.682-022 STONE-MILL OPERATOR (paint & varnish) alternate titles: paint grinder, stone mill; stone-grinder operator
Operates mills equipped with grinding stones to grind paint or paint ingredients to specified fineness: Weighs ingredients, such as pigments and oil on scale and dumps them into feed hopper of mill. Starts mill and turns valve to admit steam into mill jacket to heat ingredients. Feels or examines mixture to determine fineness of grind. Turns screws to set clearance between grinding stones to grind ingredients to specified fineness. Opens valve or starts pump to transfer mixture into cooling and storage tanks. Cleans millstones, hoppers, and scrapers, using hot water hose, solvent, and brushes. Replaces worn grinding stones, using handtools and hoist.
GOE: 06.02.11 STRENGTH: H GED: R3 M1 L2 SVP: 3 DLU: 77

555.685-010 BEATER OPERATOR (chemical) alternate titles: pulping-machine operator

Tends machine that cuts strands of nitrocotton or pyrocotton into smaller segments for processing: Pumps nitrocotton slurry to feed tanks, starts beater blades, and opens valves to force slurry against blades. Turns handwheel to adjust speed of blades during operation according to gauge reading and process specifications, to produce uniformly beaten product. Pumps beaten slurry over sieve to remove water. Submits samples of batch to laboratory for approval of product texture. Starts agitators in tub to loosen nitrocotton and pumps it into *poaching* tubs for removal of impurities.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

555.685-014 BONE CRUSHER (chemical) alternate titles: glue-bone crusher

Tends machine that crushes animal bones used in manufacturing animal glue: Starts bone crushing machine conveyor that carries bones into crushing machine. Pushes button to start second conveyor that carries crushed bones from machine into cooking tanks for further processing. May tend hydraulic press that extracts grease and glue from cooked bones and be designated Steam-Bone-Press Tender (chemical).
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

555.685-018 COPRA PROCESSOR (soap & rel.)

Tends battery of machines that grind and filter copra (dried coconut meat) into coconut oil and meal: Turns valves to regulate flow of steam that heats crushing machine to specified temperature. Starts conveyors, crushing machines, and expeller and signals worker to start feeding copra into feed hoppers. Feels ground copra to ensure that texture conforms to specifications. Observes oil flowing from expeller for presence of excess solids, and feels coconut meal to determine if meal contains excessive oil. Observes gauges and clarity of oil leaving filter presses to determine if pressure inside filters is within specified limits. Transfers oil to standby filter presses when clarity or pressure deviates from prescribed standards. Records oil and meal production in log.
GOE: 06.04.19 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

555.685-022 CRUSHER TENDER (fabrication, nec) alternate titles: frame-and-scrap crusher; frame crusher; scrap crusher

Tends machine that crushes scrap vinyl, asphalt, and asbestos preparatory to reprocessing into floor tile: Starts continuous flow of scrap material from calender and punch press onto conveyors into crusher. Observes flow of material and regulates speed of feed conveyor. Removes foreign material from conveyor and dislodges jammed material. May grind and screen mottle into various size chips used to produce marbelized effect on hard surface floor coverings.
GOE: 06.04.09 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

555.685-026 GRINDER (plastic prod.; plastic-synth.) alternate titles: cutter operator; pulverizer

Tends machine that grinds particles of solid plastics materials to specified size: Starts machine and dumps or shovels plastics into hopper. Observes equipment to detect stoppages. May clean equipment with airhose, scrapers, or brushes. May tend machine that grinds scrap material for reuse and be designated Regrinder Operator (plastic prod.).
GOE: 06.04.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

555.685-030 GRINDER (rubber goods; rubber reclaim.) alternate titles: chopper and cracker feeder; cracker; hog operator

Tends mill and separating equipment that grinds scrap or devulcanized rubber to reclaim and reprocess rubber: Turns handwheel to adjust clearance between corrugated rollers of machine to accommodate stock. Loads rubber into machine hopper. Starts machine and observes stock to ensure passage through rollers. May use magnetic device to remove metal particles from ground scrap rubber. Moves handtrucks, containing rubber stock, into position for loading. May clean or replace clogged shaker screen that sifts out oversize pieces. May pick bead wires from ground rubber tire scrap [BEAD PICKER (rubber reclaim.)]. May be designated according to type of grinding as Fine Grinder (rubber reclaim.).
GOE: 06.04.07 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

555.685-034 GRINDER OPERATOR (chemical) alternate titles: crusher operator; mill operator; pulverizer tender

Tends machine that pulverizes solid or semisolid materials used in manufacturing chemicals and related products: Installs screens of specified type and mesh in machine, using handtools, or starts auxiliary shakers (vibrating screens) that size ground particles. Starts feed conveyors, or shovels or dumps materials into machine hopper. Starts grinder and observes ground product discharged onto conveyors or into containers for impurities, lumps, or improperly sized particles. Cleans machine and conveyors, using airhose, scrapers, and brushes, to prepare equipment for grinding subsequent batches. May shovel ground product into containers for storage, shipment, or further processing. May tend machines that fill bags or drums with product. May weigh containers of materials, record weight, and enter number of containers filled on inventory records. May be designated according to material or product ground as Filtrose Crusher (chemical); Paradichlorobenzene-Machine Operator (chemical).
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 78

555.685-038 MILL ATTENDANT II (chemical)

Tends roll mill that crushes and disperses particles of pigment material in batches of viscid organic pigments: Starts roll mill, and scoops or pours batch of viscid organic pigment into hopper of roll mill. Observes distribution o
ment particles on roll of mill, and moves lever to adjust rollers to ensure
grinding and distribution of pigment particles in viscid batch. Places con
at discharge end of mill to collect batch. Clamps lid on container to p
container for shipment. Cleans roll mill, using solvent, brush, and cloth.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

555.685-042 PELLET-PRESS OPERATOR (chemical) alternate
granulator operator; hydraulic-press operator; mecha
press operator

Tends hydraulic press and auxiliary equipment that forms, granulates
sizes calcium chloride prior to use in chemical processing: Starts automat
fed ram press that forms calcium chloride into pellets. Examines pellets e
from press and turns dials that regulate length of ram stroke and control c
of press, according to specifications. Tends jaw crusher, granulator, and s
that crush, granulate, and screen calcium chloride to produce granules of
fied size. Lubricates and repairs equipment, using handtools. Places
under chute to fill with finished product for shipment, storage, or further
essing.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L1 SVP: 3 DLU: 77

555.685-046 PULVERIZER (chemical) alternate titles: blender; sali
acid blender

Tends machine that pulverizes lumps of salicylic acid: Starts machin
flow of lumps of salicylic acid into machine. Dumps pulverized salicyli
drums. Weighs and seals drums and uses powered handtruck to transp
stack filled drums.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

555.685-050 SCRATCHER TENDER (fabrication, nec)

Tends mill equipped with scratcher that granulates color mix for use in
surface floor covering: Adjusts roll clearance and speed of scratcher mo
attain required particle size, using handtools. Starts scratch mill, and pos
pans under discharge trough to receive granulated mix from scratch
Records number of pans filled. Records color and pattern data on ticket
affixes tickets to loaded handtrucks. Pushes handtrucks to storage area.
weigh and add oils or other liquid materials to mix as required. May be
ignated according to task performed as Color Receiver (fabrication, nec).
GOE: 06.04.09 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

555.685-054 SECOND OPERATOR, MILL TENDER (chemical)

Tends roller mill and auxiliary equipment, such as pumps and agitators
tion vessels) that facilitate production of phosphoric acid by strong-acid pr
from reaction of sulfuric acid with ground phosphate rock. Pumps acid
tank trucks and loads ground phosphate rock into hopper trucks as directed
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

555.685-058 SHREDDER OPERATOR (plastic-synth.)

Tends machine that heats and chops sheets of alkali cellulose into cr
for use in producing rayon: Opens hatch of machine to accommodate s
of cellulose dumped into machine by other workers. Closes and secures
and starts machine. Turns valves and observes thermometers to maintain
perature of product at plant standard. Stops machine after prescribed tim
unloading by other workers.
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

555.685-062 SOAP GRINDER (soap & rel.) alternate titles: frame s
per and crusher

Tends one or more machines that crush, screen, and pulverize soap s
and chips to form powder: Dumps soap chips into hopper of crusher,
shovel or chain hoist. Starts equipment, observes operations, and stops
chines when malfunctions occur. Observes sifting of soap granules in po
driven shaker-screen and removes chunks for further grinding in crusher. P
empty drum or bag under spout of pulverizer to receive soap powder. Rem
filled containers to storage area.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

555.685-066 WHEEL-MILL OPERATOR (chemical)

Tends grinding mill that crushes powder or explosives ingredients, suc
sulfur, saltpeter, and charcoal, used in manufacturing gunpowder: Charges
with prescribed amounts of ingredients. Starts mill wheel revolving for s
fied time or until materials are crushed and mixed and rakes or dumps con
into containers for storage or further processing. When tending mill that cr
finished powder to grains of specified size to attain uniform ballistic prope
is designated Graining Operator (chemical). May tend vibrating screens to
rate particles of varying sizes.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

555.686-010 BLOCK-BREAKER OPERATOR (chemical) alternate ti
digester operator

Feeds equipment that breaks up cakes of dehydrated nitrocellulose to fa
tate subsequent mixing and packing processes: Feeds nitrocellulose cakes
hopper of electrically powered cylinder fitted with spikes that break up ca
Removes nitrocellulose for further processing and packing. May monitor
to determine when specified amount of smokeless powder is expelled from
chine into tub and to turn lever to stop machine.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

555.686-014 SOAP CHIPPER (soap & rel.)

Feeds soap bars into machine that reduces them to chips: Starts machine
conveyor belt. Dumps soap bars onto conveyor belt or feeds them into mac

hopper. Observes operation of machine that automatically reduces bars to chips and discharges chips onto conveyor belt or into tray. Routes soap chips by conveyor belt to drying room, or spreads chips evenly in trays and removes them to drying room. May fill boxes with soap flakes or bars of soap.
GOE: 06.04.09 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

555.687-010 SCALE OPERATOR (chemical)
Weighs finished glue from crushing units, and dumps it into containers for shipment.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

556 CASTING AND MOLDING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with shaping or solidifying molten or powdered materials by pouring, injecting, or pressing them into molds or other receptacles, and allowing or causing them to solidify.

556.130-010 SUPERVISOR, PLASTICS FABRICATION (boot & shoe; inst. & app.; plastic prod.; plastic-synth.)
Supervises and coordinates activities of workers engaged in casting, molding, inspecting, and packaging fabricated plastic products: Sets up and adjusts or oversees set up of machines and equipment used to fabricate products, according to blueprint specifications. Reviews production schedules and assigns work. Inspects products for defects, such as surface flaws, color, flashing, or die marks. Measures product to verify conformance to specifications, using measuring instruments, such as micrometers, vernier calipers, and plug gauges. Observes packaging operations and examines containers to verify conformance to standards. Trains worker in job duties and production techniques. Performs other duties described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 89

556.130-014 SUPERVISOR, PLASTICS (toy-sport equip.)
Supervises and coordinates activities of workers engaged in manufacturing molded plastic toys and toy parts: Sets up injection-molding machines. Trains workers in operation of machines and assembly methods. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

556.130-018 MOLDING SUPERVISOR (plastic prod.)
Supervises and coordinates activities of workers engaged in molding plastic products, applying knowledge of molding machine setup and operating techniques and production machining methods: Reads operating logs to identify inoperative injection or blow molding machines, determines reasons for machine malfunction, and arranges for machine repair. Reviews production schedules and work orders, and assigns duties to workers according to order priorities. Studies quality control reports to identify product defects and directs machine operators to adjust machines to eliminate flaws. Examines molded products from each machine to verify conformance to specifications. Conducts or directs training of new employees in machine operation. Confers with management and other supervisors to resolve production problems. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 89

556.362-010 ARCH-CUSHION-PRESS OPERATOR (rubber goods)
Operates steam-heated conveyor press that molds and vulcanizes uncured sponge rubber to form arch cushions for rubber footwear: Reads work ticket to determine number of molds and blanks required for each style and size cushion. Notifies CALENDER OPERATOR (rubber goods; rubber tire) of stock thickness and DIE CUTTER (any industry) of dies to use and amounts of blanks needed. Selects required number of molds and baskets of blanks and supplies them to workers. Starts conveyor press and turns valves to regulate heat of vulcanizing plates. Turns handwheel to adjust distance between vulcanizing plates and molds, using feeler gauge. Directs workers engaged in positioning blanks in mold cavities and in removing molded cushions. Observes operations and examines finished product for defects, such as lumps, pits, and blisters, and to determine if mold cavities are filled and rubber is completely vulcanized. Operates warming mill to prepare stock for calendering from which blanks are cut for use in cushion press.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

556.380-010 MOLD SETTER (inst. & app.; office machines; plastic prod.; recording) alternates titles: die setter; setter, plastics-molding machine
Sets up and adjusts automatic compression, injection, or transfer machines used to mold plastic materials to specified shape, following blueprints, and utilizing knowledge of machine functions: Reads specifications to determine machine setup and prescribed temperature and time settings. Positions, aligns, and secures assembled mold or mold components, and machine accessories, onto machine press bed, according to guide marks, using hoist, power tools, and handtools. Attaches connecting lines, such as air, oil, or water to mold, and adjusts controls to regulate mold temperature. Sets machine controls and turns dials to regulate specified machine forming pressure and plastic curing time in mold. Starts machine to produce sample product. Measures and visually inspects sample product for surface and dimensional defects, using microscope, micrometer, and gauges, and adjusts machine setup to eliminate defects. May repair and maintain machines and auxiliary equipment, using handtools and power tools. May be designated according to type of machine set up as Compression-Molding-Machine Setter (plastic prod.); Injection-Molding-Machine Setter (plastics prod.).
GOE: 06.01.02 STRENGTH: M GED: R3 M2 L3 SVP: 6 DLU: 89

556.380-014 PREFORM-MACHINE OPERATOR (button & notion)
Sets up and adjusts battery of automatic machines that compress powdered plastics into tablets used in molding plastic buttons: Installs specified dies and punches onto machine holder plate according to tablet size specifications, using wrench. Adjusts stroke of punch according to tablet density specifications. Starts battery of automatic machines that compress powdered plastics into tablets. Breaks sample tablets between fingers to test hardness. Weighs sample lot of tablets to verify density. Adjusts machine controls to eliminate tablet defects.
GOE: 06.01.02 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

556.382-014 INJECTION-MOLDING-MACHINE OPERATOR (plastic prod.) alternate titles: injection molder; molder
Sets up and operates injection-molding machines to cast products from thermoplastic materials: Installs dies on machine, according to work order specifications, using clamps, bolts, and handtools. Sets machine controls, regulating molding temperature, volume of plastic, molding pressure and time, according to knowledge of plastics and molding procedures. Dumps premixed plastic powders or pellets into hopper, and starts machine. Pulls lever to close dies and inject plastic into dies to cast part. Removes finished product from dies, using handtools. Trims excess material from part, using knife. May mix thermoplastic materials and coloring pigments in mixing machine, according to formula. May grind scrap plastic into powder for reuse.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

556.382-018 POLYSTYRENE-BEAD MOLDER (plastic prod.)
Operates preexpander and continuous molding machine that expands and molds polystyrene beads under heat and pressure, forming bead board: Reads work order to determine resin type and density requirements for bead board production. Shoves intake tube in resin and presses tube into coupling of venturi feed system. Presses buttons and turns valves to activate centrifuge, supply steam, and feed resin to expander. Fills volumetric can with beads and weighs beads to determine density, using balance scale. Compares bead density with production requirements. Reads steam pressure and temperature gauges and turns steam valve or rotates auger disk, adjusting heat and resin feed rate to control bead density. Connects hose of molder feed hopper to aging bin and pushes feed hopper into place to feed molding machine. Turns venturi feed valve, sending air through feeder to draw beads from hopper into molder. Starts molding machine. Guides bead board from molder through rollers of trimmer and saw to start board. Monitors gauges and observes operation of molding machine and equipment to ensure operation according to specifications. Inspects bead board for specified fusion and finish. Turns steam and air valves to adjust heat and bead feed rate to prevent machine overload and to correct flaws in bead board. Records lot number of resin, feed rate, and steam pressure, for various densities and board dimensions. Computes production in board feet to determine output.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

556.385-010 CENTRIFUGAL-CASTING-MACHINE TENDER (button & notion)
Tends centrifugal casting machine that casts plastic cylinders used in fabrication of button blanks: Mixes resins and chemicals to form liquid plastic, following formula. Sets timing device which stops machine automatically, and presses button to start centrifugal casting machine. Pours liquid plastic into rotating drum of machine that spreads, hardens, and shapes mixture into cylindrical layer of uniform thickness on wall of drum. Slits cylinder in straight line along length, at end of cycle, using razor, and peels and removes sheet from drum wall. Uncurls and spreads sheet on table and dusts sheet with powder, using mitt, to dry surface. May pour plastic mixture of different color onto semihardened first layer. May tend machine that cuts button blanks from sheet.
GOE: 06.04.19 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

556.484-010 SCAGLIOLA MECHANIC (nonmet. min.) alternate titles: imitation-marble mechanic
Molds imitation marble (scagliola) into objects, such as desk sets, penholders, sections of pillars, and interior decorative slabs: Compounds materials in vat according to formula. Pours mixture into molds or on glass-flanged table. Dumps set pieces out of molds. Smooths objects with brick covered with moist emery, rottenstone, or other abrasive. Polishes parts with felt-covered brick. May use acetic acid solution to increase polishing quality of felt and add to luster of polished surface.
GOE: 06.02.30 STRENGTH: H GED: R2 M2 L1 SVP: 5 DLU: 77

556.582-010 PLATE MOLDER (pen & pencil; print. & pub.)
Operates hydraulic press, equipped with steam or electrically heated platens, to cast rubber or plastic matrices and rubber dies or types: Turns dial to set electric thermostat or steam valves to maintain specified temperature in press. Inserts chase containing type into press to heat type to specified temperature, or inserts engraved metal plate into press. Places sheet of hard plastic or similar material on type and allows to heat for prescribed period of time. Pulls lever to impress material into type form to make matrix. Peels matrix from type, places rubber of plastic sheet on matrix and inserts it in press. Places metal strips (bearers) of specified thickness along sides of rubber or plastic and matrix

to limit depth of pressing and determine thickness of die. Repeats heating and casting process to produce rubber die. Trims excess rubber from edges of designs, letters, symbols, and figures, using curved knife. May mix casting compound and water to puttylike consistency, spread compound on mold plate, invert casting plate over type, press compound into type and dry compound in oven. When making rubber dies or type, may be known as Vulcanizer, Rubber Plate (pen & pencil; print. & pub.).
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

556.585-010 CASTING-ROOM OPERATOR (plastic-synth.) alternate titles: hopper operator

Tends equipment that forces viscose fluid between two adjustable metal bars and into acid bath that coagulates fluid into continuous sheet of cellophane: Reads gauges and observes image on video display screen to ascertain thickness and uniformity of cellophane sheet. Turns clamp nuts, using wrench, to adjust bar gap to produce sheet of specified thickness and uniformity. Turns valves and starts pumps to regulate flow of viscose. Maintains log of operating conditions and output of casting machine.
GOE: 06.04.13 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

556.585-014 POLYMERIZATION-OVEN OPERATOR (plastic-synth.) alternate titles: oven attendant

Tends steam oven that heats liquid plastics in glass molds (cells) to form sheets: Examines and removes defective molds from handtrucks. Loads trucks holding molds into ovens and records time molds entered ovens. Turns steam and cold-air valves to maintain specified pressure and temperature in oven. Inserts knife into baked sheet or feels sheet to determine that sheet is baked to specifications.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

556.587-010 MOLD PARTER (plastic-synth.) alternate titles: cell stripper, final; parter

Removes plastics sheets from glass molds (cells): Positions mold on stand or table. Inserts wedge between edges of glass plates and pries slates from plastics sheet. Stacks plate glass on rack or trucks. Records weight of plastics sheets. May lower molds into soaking tanks to loosen plastics sheet, using hoist.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.665-010 CAKE-PRESS OPERATOR (plastic-synth.)

Tends hydraulic presses that compress and bake chipped, rolled, or slabbed plastics materials into cake molds for sheeting: Turns valves to regulate pressures and temperatures in baking and cooling presses. Turns dial indicator arm to set press-cycle time. Pulls hopper lever to fill mold with specified weight of plastics chips. Places platen on top of mold and lifts filled mold to roller conveyor. Pushes baked molds out of heated press, using bar. Pushes filled molds from conveyor and supply rack into baking press. Turns valve to close press. Observes meters and gauges to verify specified temperatures, pressures, and press-cycle times.
GOE: 06.04.13 STRENGTH: H GED: R3 M2 L1 SVP: 4 DLU: 77

556.665-014 CORRUGATOR OPERATOR (plastic-synth.)

Tends machine that pulls thermosetting plastics sheeting materials through preheating oven and forming frames to form sheets to specifications: Turns dials on control panel to regulate specified temperatures in oven and molds. Moves lever to regulate tension on sheeting. Observes gauges to verify temperatures. Observes width and alignment of sheeting to ensure flanging of sides. Positions mold frame laterally in machine to correct alignment. Feels stiffness and consistency of molded sheeting to detect machinery malfunctions. Signals PLASTICS-SPREADING-MACHINE OPERATOR (plastic-synth.) to synchronize feed of materials into molding process. Replaces molds in frame to conform to product specifications. Patches tears in film, using gummed tape.
GOE: 06.04.13 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

556.665-018 MOLDER, PIPE COVERING (plastic prod.)

Tends equipment that fuses granulated polystyrene into pipe coverings, used for insulation: Positions funnel into top of mold and dumps or opens chute of overhead hopper to load specified quantities of material. Removes funnel and adjusts stripper plate and cutter rim to ensure molding of material into specified sizes and shapes. Manually locks mold and opens steam valve to admit heat. Observes heat recorder and adjusts valves to attain specified temperature to fuse materials for prescribed period of time. Unlocks mold and removes pipe covering, using hoist. Moves product to storage area, using handtruck. May mold special products, such as toys and games, and be designated Specialty Molder (plastic prod.).
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

556.682-010 BLOW-MOLDING-MACHINE OPERATOR (plastic prod.)

Sets up and operates blow molding machine to mold plastic products according to specifications: Turns valves to start flow of water and release air pressure to machine. Moves machine controls to set timing unit and temperature of heating unit and start automatic feed mechanism. Adjusts machine mandrel and aligns mandrel with mold chamber, using wrenches. Starts molding machine that automatically feeds material from mixing unit to mandrel and to mold chamber. Closes chamber to mold product under heat and pressure. Removes workpiece from mold after timing device opens mold, and trims excess material from workpiece, using knife or bandsaw. Regrinds excess material and unsatisfactory workpiece for reuse, using grinding machine. May weigh completed workpiece to determine accuracy of machine operation.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

**556.682-014 COMPRESSION-MOLDING-MACHINE OPERATOR (
equip.; plastic prod.)**

Sets up and operates compression molding machines to mold plastic and
bon, graphite, or copper powder products according to specifications: Ins
dies on press, using clamps, bolts, and handtools, and coats dies with par
agents, according to work order. Sets thermostat to regulate temperature of
Weighs premixed compounds and dumps compound into die well, spreads
ric on die and dumps compound over fabric, or fills hoppers of machines
automatically supply compound to dies during machine operation, using sc
Presses button or pulls lever to activate machines to compress compounds
tween dies to form and cure specified products. Removes cured products f
mold, using handtools and airhose. Observes machine operation and exam
products ejected by machines to determine whether products meet speci
tions, using calipers. Turns pressure control knobs, bolts, and handwheels to
just machines. May mix catalysts and coloring pigments with plastic compo
using paddle and mixing machine. May operate compression molding mach
to form product under pressure only and be designated Cold-Molding-Press
erator (plastic prod.). May be designated Press Operator, Carbon Products (e
equip.).
GOE: 06.02.13 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 88

**556.682-018 PLODDER OPERATOR (soap & rel.) alternate titles: pl
ding-machine operator**

Sets up and operates plodder machine to compress milled soap into bars:
bolts head of machine and inserts specified plate that shapes and sizes
Opens valves to admit steam into heating coils, water to reduce heat cau
by friction on compression screw, and create vacuum to draw soap through
chine. Unbolts filter cap from machine and changes filter. Starts machine.
spects compressed bars for specified color, size, and smoothness.
GOE: 06.02.18 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

556.682-022 COMPRESSOR (elec. equip.; pharmaceut.)

Sets up and operates machine to compress granulated or powdered ingre
ents into products, such as medicinal tablets and storage battery pellets: Inst
dies in machine and adjusts spring tension and ram pressure of air- or hydr
lic-powered press, according to specifications, using handtools. Presses con
button to activate machine. Scoops ingredients into hopper or positions canis
of powder on top of hopper, using overhead lift. Raises lever to stop mach
and collects samples of product, according to established frequency, us
tweezers. Examines, weighs, and tests samples for defects, such as surface ch
and pits, soft centers, and excessive brittleness, using micrometers, scale,
hardness tester; or determines dimensions of sample to verify machine set
using calipers, micrometers, and go-not-go gauges. Routes sample to lab
analysis, according to procedure. Adjusts machine pressure and tension to
move product flaws and ensure conformity to product specifications. Reco
product information, such as scrap quantity, machine number, and ingredie
used to complete work ticket. Places completed work tickets with trays of pr
uct awaiting further processing. Removes and cleans dies and compress
chambers, using swabs. May only operate machines and notify supervisor
setup personnel of needed adjustments to machines. May pour metal bott
sections of battery and battery pellets into bins of consolidation equipment t
operates automatically in conjunction with press machines to insert pellets i
cans to form partial assembly of battery. May apply heat to pellets to imp
desired color prior to assembly into bottom sections of battery, using torch a
asbestos squares. May be designated Compressor, Battery Pellets (elec. equip.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 87

**556.684-010 CELL INSPECTOR (plastic-synth.) alternate titles: mold
spector**

Inspects viscous plastics material in plate glass molds (cells) and removes
fects preparatory to curing: Examines material through glass sheet to detect
fects, such as air bubbles, dirt particles, and other foreign matter. Stands
on end to elevate bubbles to surface and inserts spatula between molds to
move bubbles and foreign matter from edges. Inserts metal clip into mo
using spatula, and maneuvers clip, using magnet to remove defects from bo
of cell. May weigh cell on floor scale.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

**556.684-014 ENCAPSULATOR (aircraft mfg.) alternate titles: mold
resin**

Seals and encapsulates magnetic, electrical, electronic, and mechanical co
ponents of aircraft and missile parts and assemblies in plastic and other seala
materials, using handtools, power tools, and equipment: Mixes specifi
amounts of resins, curing agents, and fillers in container, according to formul
using spatula. Cleans parts to be sealed and encapsulated, using solvents, brus
and rags. Positions component parts in molds and pours or injects seali
compound into molds. Places molds in preset oven for specified time to hard
mixture around units. Smooths and finishes surfaces of hardened seali
compound, using scratch remover, files, sander, and other work aids. May app
protective coating to component parts by spraying or dipping parts in resin va
May engrave identifying symbols, letters, and numbers on unit encaseme
using pantograph engraving machine. May inspect components prior to seali
and encapsulating, using preset measuring devices. May operate curing equi
ment. May build temporary molds from metal, putty, plastic, and other mat
rials.

GOE: 06.04.34 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 88

556.684-018 MOLD-FILLING OPERATOR (plastic-synth.) alternate titles: cell pourer; flat-sheet maker

Casts plastics resin monomer in glass molds (cells) to form sheets: Opens feedline to fill scale tank with specified amount of solution and mounts cell on filling table. Moves table lever to hold cell at inclined position and inserts funnel in cell opening. Fills mold with premeasured amount of syrup, using pitcher or hose. Turns valves to control solution flow rate and adjusts angle of cell to avoid formation of air bubbles. Removes funnel and seals mold opening with tape, gasket, or other sealing device. Places cell on rack.

GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

556.684-022 NEEDLE-BAR MOLDER (carpet & rug)

Positions loom needles into slots of mold and pours liquid resins into mold to cast needle bars for use in weaving on looms: Selects type and size mold according to type and size loom needles to be set. Weighs out and mixes resins and hardeners to prepare casting material. Inserts and aligns loom needles into slots of mold, and clamps top onto mold. Pours casting mixture into opening in mold and allows mixture to set for specified time. Removes cast needle bar from mold, using pliers, and smooths rough spots, using steel wool, sandpaper, and electric emery wheel. Breaks up cracked or broken needle bars, using hammer, to salvage reusable loom needles. Hammers out bent places in used loom needles to prepare needles for recasting.

GOE: 06.04.32 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

556.684-026 RUBBER MOLDER (fabrication, nec)

Molds rubber display statuettes and models of hands, feet, and heads for attachment to display mannequins: Brushes lubricant onto interior of mold. Pours liquid rubber into mold until full. Pours surplus rubber from mold after shell of rubber has formed on inside of mold. Strips form from mold after rubber has set. Trims edges of form, using knife and smooths surface, using sandpaper.

GOE: 06.02.29 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

556.684-030 LOADER-DEMOLDER (furniture)

Casts plastic furniture parts, using molds, furniture stock, and plastic molding compound and gun: Conveys pallets loaded with furniture stock to work site, using industrial truck. Places furniture stock inside specified mold, clamps mold to furniture stock, and places mold onto conveyor. Inserts nozzle of molder gun between mold and furniture stock and dispenses plastic compound into mold around furniture stock to cast plastic furniture parts, such as edge bands. Unclamps and removes cast parts from mold after specified setup time, using chisel and knife.

GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 86

556.685-010 AIR-BAG CURER (rubber tire)

Tends steam-heated press that molds and cures air bags used in automatic tire curing presses: Weighs slugs of rubber to obtain specified charge. Positions bag core in mold, using hoist. Places charge in mold cavity and presses switch to close press and start curing cycle. Lifts core from mold when curing cycle is completed. Pushes lever to lower hydraulic clamp on core and pulls air bag free, using hoist. Counts and tallies cured air bags. May set automatic timer for specified curing cycle.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-014 BLOCK-PRESS OPERATOR (chemical) alternate titles: powder-press operator

Tends hydraulic press that compresses smokeless powder into block form for further processing: Charges press, using colloidal smokeless powder. Closes compression chamber and opens valves to compress powder. Removes block from chamber. May be designated according to pressing stage as Final-Block-Press Operator (chemical); Preliminary-Block-Press Operator (chemical).

GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-018 BOWLING-BALL MOLDER (toy-sport equip.)

Tends presses that mold cover material on bowling-ball cores preparatory to steam curing, performing any combination of following duties: (1) Cuts rubber cover stock to approximate size, using knife, and lays specified number of rubber squares in mold half. (2) Positions mold half under press ram and presses button to lower ram into mold to shape rubber. Places bowling-ball core in every other mold with marked, weighted area away from seam. (3) Places cover, mold half on core, and pushes pins through mold flanges to hold halves in position. Places mold into press and presses button to lower ram and to mold cover to core. (4) Pulls *flash* from mold seam and places or pounds brackets onto mold flange to hold mold together during curing. Opens press, pounds pins out of flange, and stacks mold on pallet. May clean cores prior to molding operations, using cabinet sandblast equipment.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

556.685-022 COMPRESSION-MOLDING-MACHINE TENDER (plastic prod.) alternate titles: molder; plastic-press molder

Tends compression-molding machines that mold thermosetting plastics into products, such as automobile heater housings, ashtrays, buttons, electronic parts, plastic panels, and dishes: Dumps specified amount of plastic powders or pellets into hopper of machine, or positions pellets or sausage-shaped plastics in mold installed on machine. Starts machine that compresses plastic into mold under heat and pressure, and allows plastic to set for specified time. Removes product from mold and cleans mold, hopper, and bed of machine, using airhose and handtools. May place plastics material on hot grid or in oven to soften it prior to molding. May weigh prescribed amount of material for molding. May place plastic sheet into machine fixture to fabricate buttons.

GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-026 COSMETICS PRESSER (pharmaceut.) alternate titles: molder; rouge presser

Tends equipment that compresses powdered cosmetics, such as face powder, eye shadow, or rouge, into cakes or sticks for use in compacts or cylindrical cases by either of following methods: (1) Spreads or brushes glue onto pans set into indentations of mold board. Fills individual molds with powder and pulls handle to force die into molds and compress powder. Positions mold on die of press and starts press that squeezes powder into cakes or sticks. Removes molds and dumps product onto tray to dry. (2) Scoops cosmetic powder into hopper of molding and pressing machine and starts machine. Places molds on conveyor that carries them into machine for automatic filling and pressing. Shakes or brushes loose powder from cosmetic cakes ejected by machine and places them on tray to dry. Discards cakes having irregularities, such as bubbles, indentations, and cracks. Feeds mold pans into glue machine and turns preset valves to spray molds with glue and dry for reuse.

GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

556.685-030 DIPPER (rubber goods)

Tends machine that dips forms into tanks of coagulant or liquid latex to produce rubber goods, such as gloves and balloons: Lifts *form board* from conveyor and fastens form board to machine bed with hinge clamps and slide bolts. Manually inverts bed and moves lever to submerge forms in tank of solution according to specifications. Raises and rocks bed to create movement that dries coagulant or equally distributes and sets latex on forms. Lifts boards to conveyor for next process. Adds solutions to tanks, using dipper to speed drying time or replenish supply to specified level. May tend automatic dipping machine that fabricates artificial rubber gloves. May be designated according to dipping solution used as Coagulant Dipper (rubber goods); Latex Dipper (rubber goods).

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-034 DIPPING-MACHINE OPERATOR (rubber goods)

Tends conveyorized machine that dips forms into liquid latex to produce rubber goods, such as balloons, finger cots, and prophylactics: Mixes liquid latex in drums, using electric mixer or wooden paddle. Dips latex from drum into cans, and conveys filled cans on handtruck to machine holding tanks. Pours latex into gravity flow tank to maintain specified tank level. Starts machine that moves forms through various vats, driers, ovens, and rinses in continuous operation to form product. Removes sample of latex goods from form after final dip, weighs it, and adds solution of ammonia or latex to tank when weight does not meet requirements. Changes filters in latex tanks. Replaces dirty, loose, or broken forms on conveyor. Adds water softener to curing tanks. Verifies temperature and humidity on instrument control charts.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

556.685-038 INJECTION-MOLDING-MACHINE TENDER (plastic prod.; recording; rubber goods)

Tends injection-molding machines that form plastic or rubber products, such as typewriter keys, phonograph records, and luggage handles: Dumps plastic powder, preformed plastic pellets, or preformed rubber slugs into hopper of molding machine. Starts machine that automatically liquefies pellets, slugs, or powder in heating chamber, injects liquefied material into mold, and ejects molded product. Observes gauges to ensure specified molding temperature and pressure are maintained. Examines molded product for surface defects, such as dents and cracks. May heat plastic material over steamtable or in oven to prepare material for molding. May remove product from mold, using handtools. May trim *flash* from product, using shears or knife. May place product in cold water or position it on cooling fixture to prevent distortion.

GOE: 06.04.10 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 81

556.685-042 MATTING-PRESS TENDER (rubber goods)

Tends press that molds and cures rubber sheeting for use as floor matting: Places roll of calendering rubber sheeting in *letoff rack* using hoist, and unwinds sheeting onto bed of steam-heated curing press. Aligns rubber sheeting with edges of die, and closes press to mold and cure rubber sheeting for specified time. Winds cured rubber matting onto powered spindle. Continues process until roll is completed.

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-046 MOLDER, FOAM RUBBER (rubber goods)

Tends hydraulic steam press that heats molds filled with mixture of foam rubber particles and latex (liquid rubber) to form cushions and mattresses: Carries filled mold from mixing machine to table of press. Smooths mixture in mold to distribute it evenly. Positions top cover on mold and places mold on press bed. Turns valve to lower ram against mold that heats and cures mixture. Removes mold, dumps molded product, and places it on storage rack. May grind foam rubber scrap, using electrically powered grinding machine. May mix ground foam rubber particles with latex, using mixing machine, and fill molds with mixture [MIXER, FOAM RUBBER (rubber goods)].

GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

556.685-050 MOLDER, MACHINE (pharmaceut.)

Tends equipment that heats and transfers mixture to conveyorized molds to form drug and toilet products, such as lipsticks and suppositories: Sets thermo-

stat control to specified setting and opens valve to circulate coolant through pipes of mold-cooling chamber. Starts conveyor that carries empty molds into cooling chamber. Turns valve to admit product to reservoir of molding machine, starts agitator, and sets thermostat control to heat product to specified pouring temperature. Starts pump to fill molds as they pass on conveyor. Removes damaged or defective molds and adjusts mold scraper to prevent overflow or underfilling of molds.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

556.685-054 PARADICHLOROBENZENE TENDER (chemical) alternate titles: paradi tender; para operator

Tends equipment that cools and solidifies paradichlorobenzene preparatory to storage, shipment, or farther processing: Pumps chemical into water-jacketed molds and turns valve to circulate chilled water through jacket and solidify material. Opens valve to admit steam to jacket to loosen crystallized product for removal. May break solidified product into smaller pieces preparatory to crushing, using wooden stick. May tend crusher to granulate product. May fill containers with crushed product and transfer containers to storage or shipping area, using handtruck.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-058 PILLING-MACHINE OPERATOR (plastic prod.; plastic-synth.) alternate titles: biscuit-machine operator; briquetting-machine operator; pelletizer; pellet-machine operator; preform-machine operator; tablet-machine operator

Tends pilling machine that compresses plastics powder into pellets or biscuits of specified weight and shape: Dumps plastics powders into machine hopper, using drum hoist or starts screw conveyor that loads hopper with material from storage bin. Opens gate valve to control flow of powder from hopper into machine. Turns steam valve to regulate temperature of machine according to ammeter gauge, and adjusts die pressure to attain specified hardness of pill. May clean, change, and adjust die. May be designated according to type of machine tended as Rotary Preformer (plastic prod.; plastic-synth.); Single-Stroke Preformer (plastic prod.; plastic-synth.).
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

556.685-062 POLYSTYRENE-MOLDING-MACHINE TENDER (plastic prod.)

Tends automatic molding machines that mold preexpanded polystyrene beads under heat and pressure into cast foam products: Observes platens and listens to steam exhaust to determine end of molding cycle. Lifts cast foam products, such as balls, coolers, displays, and packing nests, from mold cavities while platens are parting. Presses cycle repeat button to reactivate molding machine, and blows loose beads from mold cavities as platens close, using airhose. Examines castings for post-expansion, fusion, shrinkage, and pits to ensure product meets quality standards. Rubs wire screen along mold parting line on casting to remove *flash*. May wrap advertising label around cooler cover and secure label, using masking tape. May adjust machine knobs to compensate for variations in product, such as moisture content and bead density.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-066 PRESS TENDER (rubber goods; rubber tire; toy-sport equip.) alternate titles: forming-press operator; hydraulic-steam-press operator; molding-press operator

Tends heated presses that mold and cure rubber goods or sports equipment, such as bowling balls, golf and tennis ball covers, and golf ball cores: Moves mold to press, using powered truck or handtruck. Sprays inner surface of mold with lubricant to prevent rubber from sticking. Positions *preform rubber*, half-shells, or cores in mold cavities or on lower die and places upper die over rubber. May insert metal parts in mold cavities to join with rubber during process. Closes mold and pushes it into press or moves lever to raise lift-table. Closes and starts press. Sets timer for specified curing time. Pulls mold from press and strips articles from mold. Tears *flash* ring from edge of workpieces. Removes rind from molds, using airhose and steel wool. May cut preform rubber for molding. May be designated according to articles molded as Curer, Acid Drum (rubber goods); Gasket Molder (rubber goods); Golf Ball Molder (toy-sport equip.); Heel Molder (rubber goods); Outsole Molder (rubber goods); Rubber-Heel-And-Sole Press Tender (rubber goods).
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-070 RECORD-PRESS TENDER (recording)

Tends automatic steam-hydraulic press that molds plastic compound into phonograph records: Places record labels over top and bottom center pins of press, and places preweighed and heated biscuit (plastic compound) into press mold. Moves lever to close mold and start press on cycle that molds biscuit under pressure and heat to form phonograph record. Removes record at end of cycle, places record onto spindle of edge trimmer, and presses lever to start turntable that rotates record against circular blades to trim *flash* from record edge. Examines record for flaws, such as discoloration and scratches. Retains specified record samples for audio testing. May tend machine that automatically inserts labels and compound into mold, forms record, punches center hole, and trims flash from record edge.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

556.685-074 SLUG-PRESS OPERATOR (elec. equip.)

Tends machine that compresses moist welding rod coating mix into cylinder-shaped slugs: Dumps mix into forming chamber of slug press, using forklift. Presses button to close press and activate ram that automatically forms and ejects slug. Slips cellophane bag over slug or places it in container to prevent crusting or dehydration. Cleans machine, using brush, scraper, and airhose.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-078 STAMPER (chemical) alternate titles: press operator; stamp-press operator

Tends press that compacts deodorant and mothicide crystals into blocks: Bolts dies in press, using handtools. Pours crystals into lower half of press die. Turns handwheel to force upper half of die down and press crystals into block form. Lifts lever to eject block from press.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-082 VACUUM PLASTIC-FORMING-MACHINE OPERATOR (plastic prod.) alternate titles: molder, vacuum

Tends machine that molds thermoplastic sheets into plastic products: Places sheet on top of mold, positions sealing frame around sheet, and fastens frame to rim of mold, using clamps. Pushes button to start machine that heats sheet, draws it into mold to form product, and sprays product with cool water or air to harden product. Removes product from molds and reloads thermoplastic sheet into machine. May trim excessive molding material from products, using knife, scissors, or bandsaw.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

556.685-086 BLOW-MOLDING-MACHINE TENDER (toy-sport equip.)

Tends blow molding machine that automatically forms plastic toy parts: Observes continuous operation of automatic molding machine, adjusts plastic flow, and notifies supervisor of machine malfunctions. Removes molded part from conveyor or mold and trims *flash* from part, using knife, hammer, and file. Examines part for defects, such as bubbles, splits, or thin areas, and weighs part on scale to ensure specifications are maintained. Stacks molded parts in boxes for subsequent processing. Throws flash and rejected parts into regrinder machine to be recycled.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 86

556.685-090 CENTRIFUGAL-CASTING-MACHINE TENDER (plastic prod.) alternate titles: molder operator

Tends machine that casts plastic containers: Fills tubs with prescribed amounts of colored thermoplastic powder and zinc compound, using scoop and scale. Positions tubs containing mixture to facilitate loading of molds. Fills molds with specified amount of mixture, closes mold covers, and depresses toggle latches to lock covers in place. Presses buttons to start centrifugal-casting machine that automatically heats, spreads, hardens, and shapes mixture into plastic molds to form refuse containers. Pulls toggle latches to release mold covers and removes covers. Breaks seals that hold plastic containers in molds and removes containers from molds, using handtool. Wipes moisture from inside of molds, using cloth rag. Trims flashing (excess plastic) from containers, using utility knife.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 86

556.686-010 CAKE-PRESS-OPERATOR HELPER (plastic-synth.)

Assists CAKE-PRESS OPERATOR (plastic-synth.) in compressing and baking chipped, rolled, or slabbed plastics materials into cake molds for sheeting: Positions empty molds on platform scales. Spreads plastics chips evenly over mold, using spreader. Pushes molds along roller conveyor from baking press to cooling press. Pushes cooled molds from press onto roller conveyor. Removes platen from mold and pushes it along roller conveyor to storage rack. Removes cake from mold and trims *flash*, using knife. Stacks cakes on pallets. Pushes empty mold along conveyor to scale. Cleans molds and presses, using knife and scraper. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

556.686-014 CELL STRIPPER (plastic-synth.) alternate titles: mold stripper; stripper, preliminary

Prepares plastics sheets for removal from glass molds (cells), performing any combination of following duties: Pulls materials, such as cellophane, rubber tubing, or tape from cells. Unscrews clamps and pries spacing devices from cells. Sorts rubber tubing according to size and stacks clamps in bin for reuse. Loads cells on conveyor or stacks cells in racks and lowers racks into tank solution, using hoist.
GOE: 06.04.20 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

556.686-018 STRIPPER (plastic prod.; rubber goods) alternate titles: mold stripper

Strips molded latex or plastic products, such as masks, puppets, and footwear, from molds, performing any of following methods: (1) Removes mold from conveyor emerging from drying oven and clamps it in holder to secure mold. Trims excess plastic from mold top, using knife. Pries section of workpiece from mold wall, grips workpiece manually or using stripping pliers or *prongs*, and twists and pulls footwear from mold. (2) Dusts talc into molds and removes masks or puppets, using knife. (3) Immerses rack of molds in water tank to cool them, dries molds, using airhose, and pulls masks or puppets from molds, using pliers. Places acceptable items on transfer belt or in box and damaged ones on salvage pile. May clear molds by hand or using steam hose. May be designated according to material used as Stripper, Latex (rubber goods); Stripper, Soft Plastic (plastic prod.).
GOE: 06.04.13 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

556.686-022 SUPPOSITORY-MOLDING-MACHINE OPERATOR (pharmaceut.)

Fills jars with suppositories ejected from automatic molding machine, preparatory to capping: Positions empty jar under chute of machine to fill jar with

suppositories ejected from machine that automatically melts, molds, and refrigerates glycerine, forming suppositories. Places filled jar on conveyor that carries jar to capping operation. May assist MOLDER, MACHINE (pharmaceut.) in adjusting mold scraper and replacing damaged or defective molds.
GOE: 06.04.11 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

556.687-010 BOWLING-BALL-MOLD ASSEMBLER (toy-sport equip.)
Coats bowling ball molds components with parting agent, installs ball cores, and assembles and seals molds preparatory to filling and curing: Inspects parts to ensure clean and dry condition and applies parting agent, using brush or spray gun. Installs core on support bolt and turns bolt to adjust core to center of mold. Lays yarn gasket in groove around bottom flange, aligns top of mold over bottom, and secures it with thumbscrews or clamps. Places completed mold in rack for filling. May disassemble molds and remove cured balls from molds.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

556.687-014 CELL PREPARER (plastic-synth.)
Prepares molds (cells) used in casting liquid plastics materials into sheet form: Inserts wooden or plastic wedges between sides of glass cells to widen cell opening. Folds paper into funnel shape and inserts paper funnel in cell opening to provide passage for liquid plastics. Records identification data on tag and attaches it to cell.
GOE: 06.04.24 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

556.687-018 MOLD CLEANER (rubber goods)
Cleans, stores, and distributes molds used to form rubber goods: Conveys molds to presses according to work orders, manually or using handtruck. Sprays molds with steam to remove protective oil or cleaning fluid. Immerses used molds in tank of hot cleaning fluid, manually or using hoist, to loosen adhering rubber particles. Removes rubber particles from mold cavities, using hand or powered wire brush. Brushes oil on mold before storing to prevent rusting. Places mold in storage racks. May sandblast molds to renew surfaces. May repaint identifying data on cleaned molds. May disassemble molds for cleaning and reassemble cleaned molds, using handtools.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

556.687-022 MOLDER, TOILET PRODUCTS (pharmaceut.)
Fills molds with heated mixture to form drug and toilet products, such as lipsticks, deodorant, and eyeshadow sticks: Pours or opens valve to admit mixture slowly into mold cavities to avoid forming bubbles. Places mold on chilling plate or in refrigerator, or starts fan to cool and congeal contents. Scrapes excess material from mold, using spatula. May open mold and remove formed product. May insert lipstick cases or other containers into molds to hold and form product. May pump or pour mixture into temperature-controlled kettle prior to molding to heat mixture to pouring temperature. May be designated according to product molded as Lipstick Molder (pharmaceut.); Suppository Molder (pharmaceut.).
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

556.687-026 POURER (rubber goods)
Fills curing molds with latex to cast foam rubber products by any of following methods: (1) Inserts hose nozzle in opening of closed mold and twists hose clamp to control flow and fill mold with latex, observing vent overflow to determine when mold is full. (2) Pulls lever on bottom of mixing bowl to fill mold as mold is carried in position by conveyor. Scoops excess latex from mold, using scraper to prevent overflow during curing. May stir latex in mold, using paddle to remove air bubbles. May feel latex to determine consistency. May manually pour measured amount of latex into dipping tank into which molds are inserted to form coated latex articles.
GOE: 06.04.32 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

556.687-030 MOLD FILLER (toy-sport equip.)
Fills bowling ball molds: Lifts mold from supply cart, places mold on holding fixture, and positions filler hole of mold under spigot of resin tank. Turns valve to open spigot and control flow of resin from tank into mold. Turns valve to stop resin flow when mold is filled. Lifts filled mold from holding fixture onto storage cart.
GOE: 06.04.32 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 86

557 EXTRUDING OCCUPATIONS

This group includes occupations concerned with forcing or pulling materials through dies or similar small openings to form a variety of objects, such as plastic rods, tubing, and synthetic fibers.

557.130-010 SUPERVISOR, EXTRUDING DEPARTMENT (plastic prod.)
Supervises and coordinates activities of workers engaged in adjusting and operating machines to extrude and print polyethylene film used in manufacture of bags: Examines polyethylene film from extruding machine for defects and conformance to dimensional specifications. Examines samples from printing machine for clarity and registration of print, color intensity, and discriminations of shading to determine quality of print on film. Trains new workers in operation and setup of machines. May adjust and install replacement parts on machines. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: H GED: R4 M3 L3 SVP: 8 DLU: 77

557.130-014 SUPERVISOR, PLASTIC SHEETS (plastic prod.)
Supervises and coordinates activities of workers engaged in extruding plastic sheets: Observes installation of dies, and examines extruded sheets for defects. Trains new workers in machine operation and setup. May diagnose operating difficulties and adjust machine cycles. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

557.382-010 EXTRUDER OPERATOR (plastic prod.; plastic-synth.) alternate titles: stuffer, vertical hydraulic; tuber operator
Sets up and operates machine to extrude thermoplastic materials to form tubes, rods, and film according to specifications: Installs dies, machine screws, and sizing rings, using handtools. Couples hose to die holder to circulate steam, water, air, or oil to die. Weighs and mixes pelletized, granular, or powdered themoplastic materials and coloring pigments in tumbling machine according to formula. Fills machine hopper with mixed materials, using conveyor auger, or stuffs rolls of plastic dough into machine cylinders. Starts machine and sets controls to regulate vacuum, air pressure, sizing rings, and temperature; and synchronizes speed of extrusion with pulling rolls. Examines extruded product for defects, such as wrinkles, bubbles, and splits. Measures extruded articles for conformance to specifications, using micrometers, calipers, and gauges; and adjusts speed and weight controls or turns hot and cold water, air, oil, or steam valves to obtain product of specified dimensions. Tests physical properties of product with acid-bath tester, burst tester, and impact tester. May reel extruded product into rolls of specified length and weight [EXTRUDER-OPERATOR HELPER (plastic prod.; plastic-synth.)].
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

557.382-014 WINK-CUTTER OPERATOR (rubber goods)
Sets up and operates machines to extrude uncured rubber into continuous strip and to cut strip into specified lengths and weight for molding rubber footwear outsoles: Installs dies on tube machine, turns steam valve to heat die and screw chamber, feeds milled rubber chunks into machine hopper, and starts machine to force rubber through die to form continuous strip [TUBER-MACHINE OPERATOR (rubber goods; rubber tire)]. Threads extruded strip through cold-water tank and holddown bars, and between feeder belts to cutter. Turns wheel to adjust feed speed to length of blank cut. Starts machine and measures and weighs sample blank, using ruler and scale, for conformance to specifications. Removes cut pieces from discharge belt and places them on trays.
GOE: 06.02.07 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

557.564-010 EXTRUDER-OPERATOR HELPER (plastic prod.; plastic-synth.)
Assists EXTRUDER OPERATOR (plastic prod.; plastic-synth.) in extruding thermoplastic materials to form tubes, rods, and film: Tapes end of extruded article to reel spindle and starts machine that winds material onto revolving spindle. Measures extruded article with measuring wheel and cuts it to specified length, using saw or knife. Removes roll or coil from spindle, weighs roll, and records length and weight of roll on shipping tag. Saws scrap tubes and rods into lengths for grinding in hammer mill, using bandsaw. Starts hammer mill and feeds sawed scrap into mill to grind it for reprocessing. May mix thermoplastic materials and pigments, according to formula, for feeding extrusion machine. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.13 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

557.564-014 PUMP TESTER (plastic-synth.)
Verifies adjustment of pumps used to force cellulose solution through spinnerettes, forming rayon, to ensure that pump speed conforms with plant specifications for prescribed weight of yarn: Turns valve to transfer measured amount of solution to container and times flow, using stopwatch. Weighs container and solution and records findings.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

557.565-010 EXTRUDING-MACHINE OPERATOR (tex. prod., nec)
Tends machine that extrudes continuous synthetic filaments from resins to be used in making twine: Pours resin into loading drum of machine, and pours buckets of color resin into hopper of machine. Cleans extruding die or installs new die in machine. Observes thermostat heat-control unit and notifies engineer of deviations from prescribed temperature. Notifies supervisor when extruded filaments fail to meet specified standards for thickness and color. Tends tumbling machine that rotates drums of resin to mix different colors of resins before they are poured into extruder.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

557.565-014 SYNTHETIC-FILAMENT EXTRUDER (plastic-synth.)
Tends machines and auxiliary equipment that extrude continuous synthetic filaments from liquid polymer: Starts metering pumps and observes operation of machines and equipment to ensure continuous flow of filaments extruded through spinnerettes and to detect processing defects, such as drips, filament stains or missing, oversized, or fused filaments. Notifies other workers through intercom when defects occur, necessitating interruption of extruding process, to clean spinnerettes. Opens cabinet doors to cut threadlines (multifilaments) away from guides, using scissors. Lowers pan inside cabinet to catch molten filaments until flow of polymer through *packs* is stopped. Presses metering-pump buttons and turns valves to stop flow of polymer. Cuts entangled filaments wrapped around gears of machine, using pliers. Restarts metering pumps, notifies other worker to receive threadlines, pulls extruded filaments together below

spinnerettes to form threadlines, and inserts threadlines through guides to facilitate drawing process on floor below. Observes flow of finish across finish rollers and turns valves to adjust flow to specifications. Occasionally removes polymer deposits from spinnerettes and equipment, using silicone spray, brass chisel, and bronze-wool pad. Wipes finish rollers with cloths and washes finish trays with water when necessary. Marks type of malfunctions on maintenance tag, and attaches tag to machine for subsequent repair.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

557.665-010 SYNTHETIC-STAPLE EXTRUDER (plastic-synth.)
Tends machines that form continuous synthetic filaments from liquid polymer and lay tow in cans according to specified pattern: Installs *pack* into machine, using handtools, and turns lever to activate metering pump which controls amount of polymer extruded through pack. Catches extruded filaments in compressed-air gun and threads filaments through guides to capstans. Separates filaments at spinnerette, by hand, inserts cooling tube into spinnerette, and pushes lever to force air through tube to cool filaments. Guides tow over capstans and into device that lays tow into cans according to specified pattern. Observes machine operation, panelboard, gauges, and rotameter to detect machine malfunction. Turns valves and levers to adjust machines as necessary. Cuts windup from capstan. Notifies Polymer Department, using telephone, when color of polymer is not according to specifications.
GOE: 06.04.13 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

557.682-010 GRAINING-PRESS OPERATOR (chemical) alternate titles: finishing-powder-press operator; macaroni-press operator; powder-press operator
Sets up and operates hydraulic press to extrude blocks of smokeless powder into strands preparatory to cutting, drying, and bagging: Attaches specified dies to compression cylinder of press with thumbscrews or clamps. Inserts block in compression cylinder and locks cover in place with thumbscrews. Turns ram control valve to extrude powder slowly to avoid explosion. Examines extruded lengths for dirt streaks and malformations. Positions fiber containers under discharge chute of each die hole, and replaces containers as they are filled.
GOE: 06.02.18 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

557.684-010 JET HANDLER (plastic-synth.) alternate titles: spinnerette cleaner
Cleans spinnerettes that extrude synthetic fibers: Disassembles *packs* containing spinnerettes. Disassembles spinnerettes, washes them in acid bath, and drys them with compressed air. Inspects holes in cleaned spinnerettes to detect damage or wear. Disassembles, cleans, and reassembles *outflow quench sticks*. May reassemble cleaned spinnerettes, using wrench. May buff surface of spinnerettes, using power buffer. May clean clogged spinnerette holes, using ultrasonic vibrator.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

557.684-014 JET WIPER (plastic-synth.)
Wipes jets (spinnerettes) through which filaments of rayon are extruded and ties broken filaments together to facilitate uninterrupted production of acetate rayon: Observes cellulose solution emerging from spinnerettes to detect interruption or narrowing of stream, indicating blockage. Wipes surface of spinnerette with thumb to remove clogged cellulose particles. Catches and ties together strands of rayon if breaks occur in filament. Notifies SPINNER (plastic-synth.) to rethread filaments through machine after repairing breaks or wiping jets. Reports permanently clogged, damaged, or worn jets to maintenance personnel.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

557.685-010 CORE EXTRUDER (elec. equip.)
Tends manually operated extrusion press and wirecutter that extrudes and cuts paste (black mix) to form dry-cell battery cores: Loads press hopper with paste and moves lever to start ram that forces paste through die of prescribed diameter onto cutter. Pulls lever to lower wire cutter and cut extruded paste into segments (cores). Tilts cutter to dump cores onto tray.
GOE: 06.04.10 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

557.685-014 EXTRUDER TENDER (rubber goods)
Tends machine that extrudes rubber compound to produce strands for use in making elastic yarn: Adjusts valves to regulate and maintain specified flow of rubber compound and size of extruded strand. Separates strands in acid bath with tweezers and places strands on rollers leading to curing oven. Cleans and replaces nozzles. Fills feed tank with liquid-rubber compound.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

557.685-018 PROCESSOR (plastic-synth.)
Tends processing (washing, bleaching, and drying) section of machine that extrudes synthetic fiber filaments: Threads continuous filaments through guides and around rollers that carry product through machine, apply washing and bleaching solutions, and dry filaments prior to winding, twisting, or cutting into staple lengths. Observes gauges and moves controls to start and regulate flow of washing and bleaching solutions, applied to moving filament through openings in rollers, and to maintain temperature of drying rollers according to plant standards. Repairs breaks in filaments by tying ends together. In nylon plants, may set temperature of rolls that heat and stretch filaments to impart strength and fuse filaments into tow. May doff bobbins of yarn at end of windup cycle and reset clock device that regulates speed of filament travel according to diameter of bobbin.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

557.685-022 SECOND-FLOOR OPERATOR (plastic-synth.)
Tends unit of spinning machine that extrudes synthetic filaments and pass filaments to draw (stretching) machine on floor below: Observes operation machine to ensure continuous flow of filaments through spinnerettes. Inser filaments through guides to facilitate drawing process on floor below. Press buttons and turns valves to stop flow of polymer to clean spinnerettes.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

557.685-026 SPINNER (plastic-synth.) alternate titles: spinning operator
Tends machine or machine section that extrudes rayon filaments preparator to washing, bleaching, drying, and winding resulting yarn onto bobbins or cu ting it into staple lengths: Grasps filaments as they are extruded into solidifyin bath and brings ends together to form single strand. Passes strand over glas rollers that carry it through machine for subsequent processing. Ties strands to gether if breaks occur. May thread strands through washing, bleaching, and dry ing rollers and attach them to takeup bobbins [PROCESSOR (plastic-synth.) May gather filaments and throw them into glass funnel, mounted on machine with quantity of acid that carries filaments into revolving *spinning box*. Ma remove and replace bobbins as they become filled and reset clock device tha controls speed of filament travel according to diameter of bobbin. When reposi tioning glass funnels after doffing, is known as Funnel Setter (plastic-synth. May be designated according to type of spinning process as Spinner, Box (plas tic-synth.); Spinner, Continuous (plastic-synth.).
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

557.685-030 SPINNING-BATH PATROLLER (plastic-synth.)
Tends equipment to regulate flow of chemical-bath solution to trough int which cellulose slurry is extruded, forming rayon filaments: Turns valves t transfer slurry from storage tanks to trough containing spinnerettes, maintaining constant level and flow according to gauge readings and plant specifications May be designated Acid-Bath Tender (plastic-synth.) when performing dutie in plants manufacturing rayon by viscose process.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

557.685-034 TAKE-UP OPERATOR (plastic-synth.)
Tends machine that applies finish to and winds up newly extruded polyester fibers onto takeup bobbins: Turns valves on vacuum lines to activate aspirators that break and suck up yarn ends during doffing process. Grasps yarn lines at each bobbin position to gather and guide moving yarn to aspirator. Pushes filled bobbins of yarn away from bobbin drive rollers on takeup machine to stop spinning takeup bobbins. Lifts filled bobbins from machine and places bobbins on cart. Places empty bobbins on bobbin shafts of takeup machine. Pushes bobbin shafts with empty bobbins next to spinning drive rollers to power rotation of bobbins preparatory to takeup of yarn on bobbins. Pulls specified lines of yarn down from aspirator over rollers on takeup unit that guide and advance newly extruded yarn and throws yarn ends down against empty, spinning bobbins to takeup lines of bobbins. Separates yarn ends along specified guide notches of machine to facilitate takeup of yarn on separate bobbins. Aligns yarn taken up on bobbin, using wire brush.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 86

558 REACTING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with producing a chemical change in components.

558.130-010 SUPERVISOR, PHOSPHATIC FERTILIZER (chemical)
Supervises and coordinates activities of workers engaged in operation of automatic chemical process equipment to produce granular phosphatic fertilizers from raw chemicals, chemical products, and phosphate rock: Observes recording instruments, panel lights, and other indicators, and listens for warning signals to verify conformity of process conditions to plant standards. Reviews operating records and laboratory test reports to determine specific process conditions and to diagnose malfunctions in equipment. Confers with technical personnel to resolve conditions affecting safety, efficiency, and product quality. Directs workers to manually regulate process equipment or to shut down equipment during emergency situations, using telephone and radio communication systems. Trains workers in new job assignments. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

558.132-010 SUPERVISOR, CHEMICAL (plastic-synth.)
Supervises and coordinates activities of workers engaged in converting woodpulp into viscose for use in manufacturing cellophane and rayon: Orders rolls of pressed woodpulp transferred from storage to shredding room. Directs workers in moving controls to regulate caustic treatment of pulp to form alkali cellulose. Sets conveyor speed for specified aging of cellulose traveling through process chambers. Directs operation of equipment that mixes and blends cellulose with chemicals to form viscose. Directs workers in moving controls of valves and pumps to filter viscose and transfer viscose to storage. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

558.132-014 SUPERVISOR, PHOSPHORIC ACID (chemical)
Supervises and coordinates activities of workers engaged in producing phosphoric acid by reaction of sulfuric acid with phosphate rock in continuous

strong-acid process: Directs workers in changes in operating processes, work procedures, and production rates according to production instructions. Observes workers to ensure compliance with safety regulations. Prepares work orders for repair or maintenance of equipment. Trains new employees or assigns trainees to experienced workers to learn job duties. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

558.132-018 SUPERVISOR, SULFURIC-ACID PLANT (chemical)
Supervises and coordinates activities of workers engaged in producing sulfuric acid from liquid sulfur by catalytic conversion and absorption methods. Trains new employees in machine operation. Observes meters, charts, and gauges and reviews operating records to verify specified process conditions and to diagnose malfunctions in automatic operation. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

558.134-010 SUPERVISOR, BRINE (chemical)
Supervises and coordinates activities of workers engaged in preparing solutions for use in producing chlorine and caustic soda by electrolysis. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

558.134-014 SUPERVISOR, CELL ROOM (chemical)
Supervises and coordinates activities of workers engaged in producing chlorine, caustic soda, and caustic potash from brine by electrolysis. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

558.134-018 SUPERVISOR, CELL-EFFICIENCY (chemical)
Supervises and coordinates activities of workers engaged in maintenance of electrolytic cells and in drawing off hydrogen and chlorine generated by electrolysis. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

558.134-022 SUPERVISOR, HYDROCHLORIC AREA (chemical) alternate titles: hydrochloric-manufacturing supervisor
Supervises and coordinates activities of workers engaged in producing hydrogen chloride from decomposition of salt by sulfuric acid. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

558.260-010 CHIEF OPERATOR (chemical)
Controls chemical process equipment from instrumented control board or other control station: Monitors recording instruments, flowmeters, panel lights, and other indicators, and listens for warning signals to verify conformity of process conditions to plant standards of safety and efficiency. Moves control settings or notifies CHEMICAL OPERATOR (chemical) III 559.382-018 or other workers to make control adjustments on equipment units affecting speed of chemical reactions and quality and yield of product, using telephone or intercommunications system. Notifies maintenance, stationary-engineering, and other auxiliary personnel to correct equipment malfunctions and adjust power, steam, water, or air supply as indicated. Confers with technical and supervisory personnel to report or resolve conditions affecting safety, efficiency, and product quality. Interprets chemical reactions visible through sight glasses or on television monitor and reviews laboratory test reports to determine need for process adjustments. Inspects equipment for potential and actual hazards, wear, leaks, and other conditions requiring maintenance or shutdown. Records instrument readings, process conditions, and other operating data in shift log, calculating material requirements or product yield as necessary from standard formulas. Manually regulates or shuts down equipment during emergency situations, as directed by supervisory personnel. May be designated according to product produced as Chief Operator, Ammonium Sulfate (chemical); according to equipment used as Chief Operator, Reformer (chemical); or according to chemical process as Chief Operator, Purification And Reaction (chemical); Chief Operator, Synthesis (chemical).
GOE: 06.01.03 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 78

558.362-010 CATALYTIC-CONVERTER OPERATOR (chemical) alternate titles: catalytic-case operator
Controls catalytic converters to alter chemical composition of liquid or gaseous substances, according to knowledge of process and sequence of operations: Turns valves and starts pumps to admit feed stock to converter units at specified rate, and to recycle unreacted products or byproducts to auxiliary equipment. Moves controls to regulate temperatures, pressures, and reaction time, according to gauge readings, chart recorders, and knowledge of processing requirements, to maintain efficient operation within specified limits. Operates or tends auxiliary equipment, such as heaters, scrubbers, vapor compressors, filters, distillation units, condensers, and humidifiers, to prepare or further process materials entering or leaving converters, according to plant operating procedures. Directs activities of CATALYTIC-CONVERTER-OPERATOR HELPER (chemical). Draws samples of materials for laboratory analysis, or tests materials for specified characteristics, using standard gas-analysis procedures and equipment. May introduce inert gas into converters to remove explosive vapors or purge catalyst. May replace catalyst or tend equipment that regenerates catalyst for reuse. May set semiautomatic control system that places equipment units in operating equilibrium, to attain specified products and transfer them for further processing. May be designated according to materials produced as Acetaldehyde-Converter Operator (chemical); Butadiene-Converter Operator (chemical); Ethylbenzene-Converter Operator (chemical); Ethylene-Plant Operator (chemical); or according to chemical reaction effected as Dehydrogenation-Converter Operator (chemical); Ethylbenzene Hydrogenator (chemical); Ethylbenzene Oxidizer (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 7 DLU: 77

558.362-014 CD-REACTOR OPERATOR, HEAD (chemical)
Controls catalytic reactor to convert monovinylacetylene into unpolymerized constituent of neoprene rubber, according to knowledge of process and sequence of operations: Opens valves to admit water and nitrogen to system, removing air to prevent fires or explosions. Admits specified chemicals to system and observes their color to detect presence of oxygen. Sets valves and controllers to maintain prescribed positive pressure in system. Turns valves to circulate hydrogen chloride solution through gas scrubbers and to pass vaporized monovinylacetylene through solution that removes impurities. Starts reaction system or directs CD-REACTOR OPERATOR (chemical) to start system. Adjusts valves, flowmeters, and automatic controllers to obtain specified equilibrium between gas feeds and to maintain pressures and temperatures within specified limits. Determines adjustments required to avert or correct emergency situations with minimum loss in time and yield. Starts condenser to remove unreacted monovinylacetylene from product. Inspects equipment and arranges for cleaning and repairs. Drains and steam-cleans processing equipment and lines during shutdowns, using steam generator and hose. Draws samples of products for laboratory analysis. Records operational data in log.
GOE: 06.02.11 STRENGTH: M GED: R3 M3 L3 SVP: 7 DLU: 77

558.362-018 SATURATOR OPERATOR (chemical; steel & rel.) alternate titles: ammonium-sulfate operator; sulfate operator
Controls saturator tank and auxiliary equipment to precipitate ammonium sulfate by reaction of ammonia with sulfuric acid: Turns valves to admit sulfuric acid and liquid or gaseous ammonia to saturator until precipitation occurs, and to regulate saturation of solution, using titration test to determine acidity of bath. Observes temperature and pressure gauges to ascertain that process conditions meet plant standards, and turns valves to maintain operating equilibrium within specified range. Notifies supervisor or starts pumps to discharge precipitate onto drain table to settle out crystals, and pumps strained liquor back to bath. Records gauge readings for operating log. May move controls to reheat gas prior to saturation. May tend centrifuge to dry ammonium sulfate. May take samples of product and constituents for laboratory analysis.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

558.382-010 ACID EXTRACTOR (steel & rel.)
Controls equipment, such as washers, rectifiers, acid pots, and mixing tanks arranged in series to recover tar acids from coal-tar oils: Starts pumps to circulate oil through equipment, and opens valves at various stages to treat oil with chemicals, carbon dioxide, and steam, according to specified instrument readings. Performs routine tests at different processing stages to determine effectiveness of treatment. Samples products for laboratory analysis, and interprets results of analyses to make adjustments in processing operations and to control quality and quantity of production. Inspects equipment for operating efficiency, lubricates equipment, and makes minor repairs and adjustments.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

558.382-014 BURNER OPERATOR (chemical) alternate titles: ammonia operator
Controls converter and auxiliary equipment that combine hydrogen and nitrogen to produce anhydrous ammonia: Lights burner and starts pumps, compressors, scrubbers, and absorption units. Moves controls on panelboard to regulate temperatures of solutions and opens valves to admit heated and purified air and hydrogen into combustion chamber of burner, where nitrogen driven from air combines with hydrogen to form ammonia. Reads instruments, such as thermometers, pressure gauges, and potentiometers. Makes control adjustments according to operating instructions and charts. Pumps fresh solutions into scrubbing and *absorption towers* when readings indicate excessive alkalinity. Records operational data in logbook. May compute percentage of hydrogen and ammonia in burner gases, using standard test procedure.
GOE: 06.02.11 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

558.382-018 CAUSTICISER (paper & pulp) alternate titles: caustic-liquor maker
Controls equipment to process green liquor (soda ash solution) and lime into caustic liquor used in cooking woodpulp: Starts pumps and adjusts valves to control flow of water and lime into tank or revolving drum and over screens to remove lumps to make lime slurry of specified density. Adjusts valves to control flow of lime slurry and green liquor into reaction tanks in specified proportions and opens steam valve to heat reaction tank to specified temperature to make caustic cooking liquor. Adjusts controls to pump cooking liquor to settling tank and makes titration tests to determine extent of settling of lime sludge. Turns valves to pump clear liquor to storage tank and lime sludge to sludge tank. May test green liquor and calculate quantity of lime slurry additive. May make titration test to determine concentration of cooking liquor.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

558.382-022 CAUSTICISER (chenical) alternate titles: reactor operator
Operates equipment to control chemical reaction of soda ash and milk of lime to make caustic soda: Opens valves and starts pumps to fill dissolving tank

with specified amounts of soda ash and milk of lime. Starts mixer in tank to agitate materials and dissolve solids. Draws sample of mixture from tank and measures its gravity with hydrometer. Opens water valve to dilute mixture and obtain specified concentrations according to type of product. Turns valves and rheostats to adjust feeding of solution to reactor tank. Periodically takes samples of reacting liquor and titrates samples with normal acid to determine concentration of caustic soda being formed. Conducts similar tests and titrations to determine salt content and concentration of various liquors. Clears stopped pipelines and repairs equipment, using handtools.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

558.382-026 CELL TENDER (chemical) alternate titles: cell attendant; unit tender
Controls electrolytic cells to produce caustic soda, chlorine, or hydrogen to specified standards from brine (sodium chloride) solution: Regulates brine flow to cells, according to power input and strength of electrolyte. Observes flow through sight glasses; reads gauges, chart recorders, and manometer; and moves controls to regulate level of cell liquor, brine flow, cell pressure, current, and temperatures, within efficient operating limits. Turns valves and starts pumps to maintain specified back pressure on hydrogen and vacuum on chlorine. Observes gauges, turns valves, and starts pumps to tend auxiliary equipment, such as hydrogen scrubbers, water sprayers, condensers, and driers to purify, recover, or further process hydrogen, chlorine, and caustic liquor. Inspects cells, contact bars, pumps, turbines, and hydrogen and caustic outlets to detect overheating, stoppages, and leaks. Opens valves to flush lines and to draw sample of cell liquor. Measures specific gravity of liquor to facilitate process controls using hydrometer. Records data, such as temperatures, flow rate, operating time, and repairs made or needed. May replace glass and rubber tubing, nipples, and assemblies, and clean cell orifices and vents. When operating auxiliary equipment only to recover chlorine or hydrogen gas, may be designated Chlorine-Cell Tender (chemical); Hydrogen-Cell Tender (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

558.382-030 CHLORINATOR OPERATOR (chemical)
Controls equipment in which chemicals or other materials are chlorinated by reaction with chlorine gas: Pumps specified amounts of chemicals to chlorinator. Reads flowmeter and opens valves to regulate flow of chlorine and rate of chlorination reaction. Reads temperature gauges and turns steam and coolant valves to maintain reaction within specified temperature range. Tests sample of product for specific gravity and for boiling or freezing point, using hydrometer and thermometer. Observes color of product to determine when chlorination is completed. Records operating data, such as temperature and pressure in chlorinator and related equipment. May operate auxiliary units, such as vaporizer, filters, stills, and stripping columns. May be designated according to product formed as Bleach Chlorinator (chemical); Sulfur-Chloride Operator (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

558.382-034 CUPROUS-CHLORIDE OPERATOR (chemical) alternate titles: catalyst-manufacturing operator
Controls equipment to produce cuprous chloride, used as catalytic agent in chemical processes: Weighs or measures specified amounts of cuprous powder and other ingredients, and dumps materials into tank. Starts tank agitator and moves controls to heat and agitate ingredients to effect prescribed reaction, and to transfer product to auxiliary equipment for further processing. Tests filtrate for impurities, using standard chemical test equipment and procedure, and draws samples of chloride for laboratory analysis. Operates hydrogen-chloride coolers, condensers, and absorbers [ABSORTION OPERATOR (chemical)] to produce and supply hydrochloric acid to reactor units, using hydrometer to verify that specific gravity is maintained within prescribed limits. Compiles inventory reports of materials used and consumed. May shovel chloride from filter tank into containers for storage or transfer to other processing areas.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

558.382-038 KETTLE OPERATOR I (chemical)
Controls heated reaction kettles to process liquid and solid materials into specified chemical products: Turns valves or starts automatic metering pumps that admit specified quantity of liquid materials into kettle. Weighs and dumps or scoops prescribed solid, granular, or powdered ingredients into kettle, according to production sheet. Starts agitator to mix materials for specified time or stirs mixture with paddle. Observes gauges and recording instruments, and adjusts valves and controls to maintain temperature, vacuum pressure, and speed of reaction in kettle within prescribed limits. Draws sample of product for laboratory analysis. May test product for specified characteristics, such as acidity and composition, using standard litmus paper test and pH meter. May observe reaction through porthole in equipment and adjust controls to regulate speed or degree of reaction, according to knowledge of process. May tend auxiliary equipment, such as quench tanks and filter presses, to process resulting product or ingredients used to sustain reaction. May be designated by degree of pressure maintained in kettle as High-Pressure-Kettle Operator (chemical); Low-Pressure-Kettle Operator (chemical).
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

558.382-042 KETTLE OPERATOR (plastic-synth.) alternate titles: reactor-kettle operator
Controls automatic or semiautomatic equipment to polymerize solutions in reaction kettles to produce synthetic-rubber polymers, such as silicone or neoprene, following written specifications: Weighs solid or liquid chemical additives, using balance or floor scale. Dumps ingredients into kettle, using overhead hoist. Turns valves to load kettles with monomer, catalyst, and modifier solutions. Starts agitator and turns steam or water valves to activate and control polymerization. Observes and records dial and gauge readings, and draws and tests samples to determine degree of completion of polymerization. Turns valves to release vacuum and to cool batch to terminate polymerization. Starts pumps to transfer nonreacted materials to rerun tank. Flushes kettle with water and changes filter socks, or cleans kettle, using brushes and cleaning solvents. May remove reactor cover and manually dump catalyst in reactor.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

558.382-046 NITRATOR OPERATOR (chemical)
Controls equipment to combine and process acids and specified chemical ingredients to produce explosives, such as nitroglycerin, tetryl, or TNT: Admits specified ingredients, such as mixed acids and toluene compounds, to metering or weighing tanks, and regulates feed to nitrator in specified timing and sequence. Starts agitator to mix ingredients for prescribed time or until settling occurs. Observes temperature and pressure gauges and turns steam and coolant valves to regulate reaction within specified limits to prevent explosion. Transfers batch or specified components to storage tanks or other processing equipment after prescribed time or when visual inspection indicates reaction is completed. Records gauge readings, nitration time, and ingredients consumed in shift log. May be designated according to explosive produced as Nitroglycerin-Nitrator Operator, Batch (chemical); Tetryl-Nitrator Operator (chemical); or according to intermediate materials nitrated as Binitrotoluene Operator (chemical); Mononitrotoluene Operator (chemical). May control continuous-process equipment and be designated Biazzi-Nitrator Operator (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

558.382-050 POLYMERIZATION-KETTLE OPERATOR (plastic-synth.) alternate titles: kettle operator; resin maker; syrup-kettle operator; synthetic-resin operator
Controls reactor vessels to polymerize raw resin materials to form phenolic, acrylic, or polyester resins: Pumps specified amount of raw material into calibrated tank according to formula and transfers materials into reactor. Starts mixers and pumps reagents and catalysts into reactor. Starts circulation and vacuum pumps. Adjusts valves to regulate flow of preheated or cooled fluid around jacket of reactor and to start and regulate polymerization reaction. Adjusts valves to regulate pressure and temperature in reactor. Tests viscosity and pH of resins to determine length of polymerization time, using pH meters and viscosimeters. Turns valves to discharge processed materials from kettles into cooling pans. Records processing time, pressure, temperature, and test results in log; and writes daily reports on amounts of raw materials used and finished product barreled or stored. May dump compounds into polymerized resins to thicken product. May pump polymerized resin from storage tanks to tank trucks or cars for shipment. May cast liquid plastics in molds. May analyze sample of plastics materials to determine clarity, acidity, fusibility, or brittleness, using slide rule, torsion balance, and other testing equipment.
GOE: 06.02.13 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

558.382-054 SODA-COLUMN OPERATOR (chemical)
Controls carbonating tower to precipitate sodium bicarbonate crystals from ammoniated brine in Solvay process production of soda ash: Observes temperature, pressure, and flowmeter gauges and adjusts valves and controls to admit ammonia and brine to converter and to regulate process conditions, according to plant procedure. Tests concentration of product, using standard test equipment and procedure, and adjusts temperature in tower to produce sodium bicarbonate crystals of specified size and concentration for efficient filtering, washing, and drying of product, to form soda ash. Flushes feedlines, using steam hose; and replaces gaskets, using handtools. May tend stills and related equipment to produce ammonia for absorption into brine.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

558.382-058 WET-MIX OPERATOR (chemical)
Controls premixer and reaction vessels to produce orthophosphate liquor by reaction of phosphoric acid with soda ash: Sets timing device on weigh tank to effect prescribed feed rate of soda ash to premixer. Starts premixer, pumps, exhaust fans, screw conveyors, and bucket elevator in required sequence. Observes flowmeters and turns valves to regulate flow of phosphoric acid and water to premixer as specified. Swings discharge spout over reaction vessel, and starts agitator in vessel to admit and mix product. Turns valve to regulate flow of steam through vessel heating coils to attain reaction, observing thermometer to verify required temperature. Lowers dipstick into tank to obtain sample for laboratory testing. Turns valves to add measured amounts of chemicals, as indicated by laboratory reports, to regulate chemical properties of mixture to specifications. Turns valves and starts pump to transfer finished mixture to spray drier feed tanks.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

558.385-010 CD-REACTOR OPERATOR (chemical)
Tends catalytic reactor that converts monovinylacetylene into unpolymerized constituent of neoprene rubber as directed by CD-REACTOR OPERATOR, HEAD (chemical): Moves equipment controls to start and shut down reactor components in sequence as directed. Gauges catalyst level in reactors and patrols area to record instrument readings in operating log. Collects and titrates samples of catalyst to facilitate process adjustments and production of product

meeting specified standards. Starts pumps to discharge and recharge catalyst in reactors and calcium chloride in driers and scrubber towers. Drains and flushes process lines and equipment, using water, steam hoses, and nitrogen-sweeping equipment. Inventories supplies received and consumed.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

558.385-014 TOWER HELPER (chemical)
Tends equipment units that generate hydrogen chloride to facilitate process control by ABSORPTION OPERATOR (chemical): Installs chlorine cylinders in chlorinating unit. Starts equipment and pumps to mix metered amount of chlorine with hydrochloric acid from absorption system and to transfer chlorinated acid to feed tanks of stripper still. Draws samples of product for laboratory analysis, or tests sample for specific gravity, acidity, and composition to maintain product specifications, using such instruments as hydrometer and pH meter. Maintains records of tank levels, gauge and instrument readings, and inventory of materials used and produced.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

558.482-010 FURNACE OPERATOR (chemical)
Controls continuous-process furnace and related equipment to decompose salt cake, forming hydrogen chloride: Starts salt conveyors or shovels salt cake into furnace; turns valves to fill furnace reaction pot with sulfuric acid from supply tank; and sets burners, dampers, and vents to fire furnace to specified temperature and effect liberation of hydrogen chloride. Computes salt and acid requirements, using instrument readings and formulas, and sets feed scales and timers for continuous operation or manually regulates feed and temperature controls to maintain production in comformity with plant standards. Removes scale from furnace walls and agitates salt cake to maintain efficient production, using scrapers and rake. Starts or regulates speed of salt-removal device to prepare furnace for new charge. Maintains log of shift production, gauge readings, and equipment failures.
GOE: 06.02.11 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 77

558.485-010 CAUSTIC OPERATOR (paper & pulp)
Tends equipment to causticize sodium compounds recovered from paper manufacturing processes: Observes dial indicators, charts, flowmeters, and signal lights on panel to determine level and temperature of solution in reactor tank, rate that chemicals flow into reactor tank, level of lime sludge in settling tanks, and amount of sludge in washers. Starts pumps to control flow of slaked lime and recovered chemicals into reactor tank, causticized solution to storage tanks, and lime sludge through washers to lime kiln, according to specifications. Tests alkalinity of causticized solution by titration, records test results, and computes percentage of caustic in solution, using slide rule.
GOE: 06.02.11 STRENGTH: L GED: R3 M3 L2 SVP: 4 DLU: 77

558.565-010 ACID-PLANT HELPER (chemical)
Tends furnace, absorber, cooler, scrubber, and auxiliary equipment used in producing phosphoric acid by oxidation and hydration of elemental phosphorus: Patrols work area, observes water levels in scrubber, venturi-duct pan, and cooling-tower basin; and reads flowmeter and pressure gauges on phosphorus pump, fans, and blower to verify process conditions. Records or calls readings to operator. Observes flow of cooling water over top and outer walls of furnace to ensure uniform distribution, and notifies operator of malfunction. Takes sample of cooling water for laboratory alkalinity test. Turns valves to transfer acid to specified storage tanks and to start and stop water sprays in absorber, as directed, to control acid strength. Removes and replaces screens and filters, using wrenches. Opens valves to flush phosphorus pump and water-treating equipment with steam and regenerative chemicals.
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

558.565-014 ELECTRIC-CELL TENDER (chemical)
Tends battery of electric cells (tanks having positive and negative poles) to dissociate chemical elements from solutions: Examines poles and sides of cells for defects, such as corrosion or cracks, and notifies supervisory personnel of findings. Opens valves to fill cells with solutions, and moves controls to start electrolytic process. Observes gauges and indicators on panelboard; and moves controls to maintain specified pressure, temperature, amperage, and voltage in each cell. Presses button to actuate automatic measuring and gas-testing device, and observes gauges that indicate gas volume and dissociation of solution in each cell. Records data in operational log.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

558.582-010 PHOSPHORIC-ACID OPERATOR (chemical)
Operates agitators (reaction vessels), vacuum-filtrate system, and allied equipment from instrumented control board to produce phosphoric acid by reaction of sulfuric acid with phosphate rock in continuous strong-acid process: Monitors recording instruments, flowmeters, panel lights, and other indicators, and listens for warning signals to verify conformity of process conditions to plant standards. Starts automatic feed of phosphate rock, water, and sulfuric acid through reaction tanks, vacuum-filtrate system, and pumps. Turns knobs and screws on control board to regulate temperatures, weight, pressures, and flow of materials through system to effect prescribed reaction, according to knowledge of equipment and process. Draws samples of product at specified stages of process for laboratory analysis. Maintains log of gauge readings, shift production, and equipment malfunctions. Patrols area to inspect equipment for leaks and hazards, such as wear and pending malfunction.
GOE: 06.02.11 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

558.584-010 CELL TESTER (chemical) alternate titles: anode adjuster
Adjusts anodes on electrolytic cells to regulate voltage, using handtools: Attaches voltmeter wires to cell and millivoltmeter wires to anode and observes readings to determine adjustments required. Loosens locknut and position nut, using wrenches, to lower anode until specified voltage reading is attained. Records cell voltage readings before and after adjustments and records number of anodes adjusted. May examine and repair defective cells [CELL REPAIRER (chemical)] or notify maintenance personnel of repairs needed. May clean cells and clear clogged feedlines, using scrapers, brushes, and rod. May seal cell leaks, using putty.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

558.585-010 CATALYTIC-CONVERTER-OPERATOR HELPER (chemical)
Tends catalytic converters that alter chemical composition of liquid or gaseous substances as directed by CATALYTIC-CONVERTER OPERATOR (chemical): Moves controls to set material feed, temperature, and pressure regulators at specified values. Monitors operation of pumps and auxiliary equipment, such as heat exchangers and absorbers, and moves controls to maintain operating equilibrium in auxiliaries as directed. Assists other workers in changing catalyst in reactor units. Turns valves to purge converters and sets thermostat on catalyst regenerators to rejuvenate spent catalyst. Records instrument readings in operating log. May be designated according to product produced as Butadiene-Converter Helper (chemical); Ethylbenzene-Converter Helper (chemical); Ethylene-Plant Helper (chemical); or according to chemical reaction effected as Dehydrogenation-Converter Helper (chemical).
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 5 DLU: 77

558.585-018 CONTACT-ACID-PLANT OPERATOR (chemical) alternate titles: regeneration operator; sulfuric-acid-plant operator
Tends automatic equipment that produces sulfuric acid by *contact process*: Turns valves and moves levers to start and stop flow of liquids and gases through converter, heat exchangers, absorber, cooler, and related equipment as indicated. Monitors lights, gauges, and recording instruments on control panel to determine that temperature, steam pressure, and flow of materials through system conform to plant standards. Patrols equipment area and records gauge readings at specified intervals for operating log. Collects sample of product for laboratory analysis and performs tests to determine specific gravity and percentage of sulfuric acid being processed. Periodically examines emission exits to determine that anti-pollution standards are met.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

558.585-022 CUPROUS-CHLORIDE HELPER (chemical)
Tends tanks, *absorption tower*, and related equipment that produces cuprous chloride for use as process catalyst, as directed by CUPROUS-CHLORIDE OPERATOR (chemical): Turns valves to transfer materials through auxiliary units, such as coolers, condensers, and absorbers, and to storage tanks. Assists CUPROUS-CHOLORIDE OPERATOR (chemical) in charging reaction tank with powdered copper. Records gauge readings and shift production for operating log. Patrols work area to detect and report malfunctions.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

558.585-026 DEVULCANIZER TENDER (rubber reclaim.) alternate titles: devulcanizer operator; digester charger
Tends *devulcanizers* that process ground scrap rubber with chemical compounds under steam pressure to produce *reclaim* rubber: Turns valves and observes gauges to drain specified quantities of materials, such as oil, pigments, and water onto scrap rubber in devulcanizer. Closes and bolts loading hatch to seal devulcanizer. Turns valves and observes gauges to maintain specified operating temperature and release steam pressure when unloading devulcanizer. May attach specified cycle chart to automatic timer. Records production data. May open discharge valve, allowing steam pressure to blow devulcanized rubber into holding tank. May weigh and dump ground scrap rubber into devulcanizers [DEVULCANIZER CHARGER (rubbee reclaim.)]. May tend high-pressure devulcanizer and be designated High-Pressure Devulcanizer Operator (rubber reclaim.).
GOE: 06.04.13 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

558.585-030 LEAD-NITRATE PROCESSOR (chemical) alternate titles: lead-shop operator
Tends heated kettle and auxiliary equipment to process molten lead and nitric acid into lead nitrate: Loads lead-melting kettle with lead ingots, using hoist. Turns valves to regulate flow of fuel oil and air, and tends stoker or shovels coal to fire furnace that melts lead in kettle. Ladles molten lead into trough or tips melting kettle to pour molten lead into trough for transfer to vat containing nitric acid where ingredients combine to form lead nitrate. Turns outlet valve to transfer lead nitrate to filter press for removal of impurities [FILTER-PRESS OPERATOR (any industry)]. Tests sample of filtrate for purity by observing color or using litmus paper. Starts pumps to transfer batch to storage tank. Gauges contents of tanks, using calibrated stick, and records quantity on batch card. May ladle molten lead into vats containing cold water to cause solidification into irregular, spongelike shapes, exposing more surface area for faster chemical reaction in subsequent process treatment. May drain off water and shovel solidified sponged lead onto conveyor for further processing.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

558.585-034 NEUTRALIZER (soap & rel.)
Tends kettles to neutralize alkaline paste used in preparation of liquid and powdered detergents: Turns valves to charge kettle with specified liquid ingredients, and starts agitator. Observes thermometer and adjusts flow of materials to maintain reaction temperature. Tests sample with meter to ensure neutral

product. Records readings and test results. Tends pumps to maintain supply of liquid ingredients in measuring tanks.
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

558.585-038 POLYMERIZATION HELPER (plastic-synth.)
Assists POLYMERIZATION-KETTLE OPERATOR (plastic-synth.) in polymerizing raw resin materials to form phenolic, acrylic, and polyester resins: Starts pumps and turns valves to route raw materials into designated reactor vessels. Dumps powdered ingredients and resins into reactors by hand or using hoist. Turns reactor discharge valve to allow material to flow through funnel into drums to fill drums with base and blended resins. Marks product data on drums, using precut stencils, ink, and brushes. Makes new stencils as necessary, using stecil-cutting machine. Transports materials in production area, using handtruck and powered hoists. Taps reactors to obtain test samples for laboratory tests. Starts pumps and opens valves to pump resin from storage tanks into tank trucks or railroad cars for shipment. May tend coolers to reduce temperature of resins after polymerization. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

558.585-042 TWITCHELL OPERATOR (chemical)
Tends vats in which fats or vegetable and animal oils are processed into glycerin and fatty acid: Pumps specified amount of fat or oil into vat and admits prescribed quantity of sulfuric acid from storage tank. Observes gauges and thermometer and turns steam valves to boil contents of vat. Pumps oil or fat to second vat and adds specified amount of distilled water and Twitchell's reagent. Starts agitator in vat and turns steam valves to boil mixture for prescribed time. Observes mixture through sight glass in pump line and turns valves to transfer fractions of product having different color and density to respective storage tanks. Records shift production, materials used, and heating and agitating time.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

558.666-010 DEVULCANIZER CHARGER (rubber reclaim.) alternate titles: weigh and charge worker
Charges ground scrap rubber into *devulcanizers* that process rubber with chemicals and steam: Pulls levers to drop measured amount of rubber into scale hopper. Pushes loaded hopper along monorail and pulls lever to dump contents into machine. Signals DEVULCANIZER TENDER (rubber reclaim.) when machines are loaded. May measure and pour specified pigments, caustics, and oils into devulcanizer. May observe gauges and turn valves to relieve steam pressure in devulcanizer preparatory to unloading and blow devulcanized rubber through tubes into storage bins.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

558.682-010 CRACKING-UNIT OPERATOR (plastic-synth.) alternate titles: recovery-unit operator
Operates cracking (recovery) unit of lead pots and condensers to vaporize and condense scrap plastics materials and recover monomer: Unbolts and removes side covers from lead pot, using handtools, and charges it with lead pigs. Adjusts controls of oil burner to melt lead at specified temperature. Sets pressure regulators to supply specified quantity of carbon dioxide to lead pot to eliminate formation of explosive mixture and observes process to detect leaks. Turns screw feed controls to regulate flow of scrap materials into molten lead. Adjusts controls on condensers which automatically recover monomer from solvent and pumps cracked monomer to storage tanks. Dismantles lead pot. Drains lead into molds.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

558.682-014 DISSOLVER OPERATOR (chemical)
Controls equipment that dissolves and precipitates chemicals used in manufacturing chemical products, such as butadiene and styrene: Pumps chemical solutions through premeasuring tanks, dissolver tanks, and precipitator tanks, observes thermometers, and turns valves to maintain temperature in tanks within specified limits to dissolve and precipitate solutions. Starts tank agitator to mix solution for prescribed time. Titrates sample of solution and inserts hydrometer to determine acidity and specific gravity of product. Observes flowmeters and turns valves to regulate flow of ingredients through tanks to alter concentration and produce product meeting specified standard. Pumps or drains remaining solutions from precipitate and turns valves to transfer product for further processing, shipment, or storage. When controlling precipitator tanks only, may be designated Precipitator Operator (chemical). When dumping caustic soda cake into dissolving tanks and controlling tanks to produce solution of specified concentration, may be designated Bottom-Liquor Attendant (chemical).
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

558.682-018 FERMENTATION OPERATOR (chemical) alternate titles: biological-plant operator
Controls fermentation chambers and tanks to produce enzymes from fungal or bacterial growth for use as industrial catalysts: Sprinkles seed from hand container into mixing drum containing culture medium, such as bran, and starts drum revolving for specified time to disperse seed throughout medium. Opens drum to discharge batch into tubs, and shovels batch onto trays. Places trays on racks and pushes them into growing chambers. Sets thermostats, observes pressure gauges and meters, and moves controls to maintain specified atmospheric conditions that promote growth of culture. Examines batch for contamination by smell, touch, or observation, using knowledge of fermentation reactions. Removes trays from chamber after specified time. Dumps contents onto conveyor that transfers material through delumping machine into portable tan Positions tanks under water faucets and opens valves to flush enzymes throu sieve. Turns valve to siphon solution through series of portable tanks into he tank. Tests extraction for specific gravity, acidity, and alkalinity, using hydro eter and litmus paper, and adds specified salts, acids, or bases. May start ce trifuge to separate solids from product.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

558.682-022 RECOVERY OPERATOR (chemical) alternate titl denitrator operator
Controls distillation equipment to recover sulfuric and nitric acids from re due produced in manufacturing TNT and nitroglycerin: Turns valves and o serves gauges and instruments to regulate flow of acids, steam, and water in denitrator tower to liberate nitric fumes, and to effect absorption of fumes absorption towers for recovering acid of specified concentration. Draws ac samples for laboratory testing and pumps acid to storage tanks after laborato approval. May determine concentration of acid, using hydrometer.
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

558.685-010 ACID-POLYMERIZATION OPERATOR (chemical)
Tends batch still and polymerization vessel to distill and polymerize acry acid used in production of plastics: Tends laboratory-type batch still to vapori and condense acrylic acid [BATCH-STILL OPERATOR (chemical) I]. Mea ures amount of distillate, using burette or gauging rod, and pours distilled ac into water-jacketed polymerization vessel. Heats vessel to prescribed temper ture, and adds specified quantity of reagents to effect polymerization. Draw samples of product for laboratory analysis. Turns valves to transfer polymeriz acid to storage or processing areas.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L1 SVP: 3 DLU: 77

558.685-014 BALL-MILL OPERATOR (chemical)
Tends ball mill and auxiliary equipment to produce sodium salicylate for u in production of salicylic acid: Opens valves to transfer specified quantities sodium hydroxide and phenol solutions to tank, and starts agitators to mix sol tions to form mixture of sodium phenate and water. Drains mixture into ba mill (closed metal tank), opens exhaust valve, and starts heaters to evapora water from sodium phenate. Observes moisture indicators to determine wh water has been removed from sodium phenate. Pumps cold water into jack of ball mill to contract mill walls sufficiently to loosen pulpy sodium phenat Heats ball mill to specified temperature, increases pressure in ball mill to r quired level, and pumps carbon dioxide into ball mill to change sodium phena to sodium salicylate. Opens vents to rid sodium salicylate of excess carbon d oxide. Pumps specified quantity of water into ball mill to dissolve sodium sali ylate, and pumps sodium salicylate solution into tanks for further processin into salicylic acid.
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

558.685-018 BLEACHER OPERATOR (chemical; soap & rel.) alterna titles: cp bleacher operator
Tends tanks in which liquid and solid chemicals are bleached: Pumps spec fied amounts of liquid materials into tank. Dumps or scoops preweighed solid into feed hopper and starts agitator to mix ingredients for prescribed time. Ob serves temperature recorder and turns steam valves to maintain mixture at spec ified temperature. May drain sample of product for laboratory analysis. Ma pump product to storage tanks or to other equipment for further processing May record weight of material used and bleaching time.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

558.685-022 CELL-TENDER HELPER (chemical) alternate titles: cell-at tendant helper
Tends electrolytic cells to produce chlorine, caustic soda, and hydrogen, per forming any combination of following tasks under direction of CELL TENDER (chemical): Pulls and positions current jumpers, connects jumper arms on cir cuits, and throws switches to cut cells out of service. Disconnects brine, gas and hydrogen lines, using wrenches, to prepare cells for changing; and assist CELL CHANGER (chemical) in positioning cathodes and cell assemblies i place. Reconnects lines and flips switches to return cells to operation. Open valves to flush lines, adjust and maintain brine flows and levels, and switch flow from brine tanks to bypasses. Draws sample of cell liquor and tests sampl for caustic strength, using standard test equipment and chart. Cleans brine lines using brushes and steam hose; and removes and dips sight glasses, nipples bushings, elbows, tube assemblies, and rubber tubing in acid, solvent, or wate bath to clean them. Examines chlorine lines for cracks, and cleans out orifice and vents. Changes chart recorders.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

558.685-026 DE-IONIZER OPERATOR (chemical)
Tends equipment that purifies glycerin by deionization process: Starts pumps to force glycerin slurry through resin beds in series of purification tanks. Ob serves flowmeters and pressure gauges, and adjusts controls as necessary to meet process standards. Tests slurry for acidity periodically, using litmus paper Draws samples of purified glycerin for laboratory analysis. Back-flushes tanks with acid solution to regenerate resin, as necessary.
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

558.685-030 ION-EXCHANGE OPERATOR (smelt. & refin.)
Tends battery of machines that recover uranium from slime (uranium sulfate and waste materials) through ion-exchange process: Regulates pumps to control

flow of slime through machine tanks at specified level. Fills porous baskets in tanks to specified level with uranium collector (synthetic resin beads), using bucket. Starts machine that dips baskets into slime to recover uranium which is deposited on surface of collector through ion-exchange. Drains tanks after specified period of contact time and cleans slime residue from tanks with hose. Refills tanks with nitric acid solution, using pump. Restarts machine to dissolve uranium from surface of collector in nitric acid solution. Starts pumps to move uranium nitrate solution from machine tanks to precipitation tanks.
GOE: 06.04.10 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

558.685-034 ION-EXCHANGE OPERATOR (chemical)
Tends equipment that removes metallic salts from gelatin solutions: Opens valves to control flow of hot water through jackets on exchangers (columns) to preheat equipment to prevent premature coagulation of gelatin solution. Connects gelatin-solution hoses to exchangers and pumps gelatin from storage tank through exchangers. Reads gauges to determine pressure in exchangers and adjusts valves as required to maintain specified pressure. Reads dial to determine pH (acid concentration) of solution and adjusts valve that controls flow of acid to maintain pH necessary to convert metallic salts in gelatin solution into acids that are absorbed by synthetic resins contained in exchangers. Pumps gelatin solution from exchangers to storage tank. Mixes solutions of acid and alkali and pumps solution through exchangers to wash metallic salts from synthetic resins and regenerate system. Turns valves to admit condensate that removes excess acid and alkali. Reads dial that indicates pH of regenerating solution and adjusts valves to maintain specified pH.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

558.685-038 ION-EXCHANGE OPERATOR (pharmaceut.)
Tends equipment to remove impurities from water used in manufacturing pharmaceuticals and toilet preparations: Starts pumps and turns valves to regulate flow of water into ion-exchanger to remove impurities such as magnesium and calcium. Activates electronic particle-detection devices to indicate level of impurities in treated water and automatically shut down system when impurities reach undesirable level, indicating need to regenerate system. Pumps water through tanks to flush system preparatory to regeneration. Circulates caustic solution through ion-exchanger to remove impurities from synthetic resins. Pumps water through system to rinse resin beds to remove caustic solution. Observes operation of pump units and pipe systems to detect leaks or mechanical defects. May tend water softener and demineralizing units to provide purified water for chemical process systems.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

558.685-042 LEAD-OXIDE-MILL TENDER (elec. equip.)
Tends continuous oxide mill and auxiliary equipment that converts pig lead into lead oxide used in manufacture of storage battery paste: Ignites furnace burner and loads pig lead into kettle that automatically melts lead and pours molten lead into machine that shapes lead into balls and discharges balls into storage bin. Rakes specified number of lead balls into mill that converts lead balls into lead oxide powder. Observes temperature and weight gauges, and turns valve to add coolant to mill as needed. Opens chute to release powder into barrel when milling is completed. Weighs and tests powder to determine percentage of oxidation, using reagents, gram scale, and other testing equipment. Reprocesses powder not meeting specifications. Records test results and amount of lead oxide powder milled.
GOE: 06.04.10 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

558.685-046 MVA-REACTOR OPERATOR (chemical)
Tends catalytic reactor and auxiliary equipment that produce monovinylacetylene for use in neoprene rubber manufacture, as directed by MVA-REACTOR OPERATOR, HEAD (chemical): Determines specific gravity of brine solution in drier unit, using hydrometer, and turns valve to circulate brine through saturator to maintain strength at plant standard. Weighs prescribed quantities of materials, dumps materials into mixing tanks to prepare brine solution, and opens valve to admit brine to drier as directed. Moves controls to start equipment that removes byproduct solution from drier by continuous flotation. Draws samples of materials as directed and determines acidity, using standard chemical test equipment and procedure. Maintains acidity at specified level in equipment to prevent explosion hazard. Drains and flushes saturators, using steam hose, and refills units with calcium chloride to maintain saturator efficiency.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

558.685-050 NITROGLYCERIN NEUTRALIZER (chemical) alternate titles: neutralizer
Tends vats that wash and treat nitroglycerin to neutralize acids remaining from nitrating process in explosives manufacture: Admits warm water to vat of nitroglycerin, and introduces stream of air from bottom of vat to agitate and mix product for specified interval. Turns off water and air to allow mixture to settle and opens drain cock to draw off wash water. Admits prepared aqueous solution of soda ash to vat to neutralize remaining acids, and starts agitating airflow. Tests mixture with litmus or other chemical indicator, rewashes nitroglycerin when it tests neutral, and transfers it to storage or processing areas. May prepare soda-ash solution, according to formula or proportion table.
GOE: 06.04.11 STRENGTH: L GED: R3 M1 L2 SVP: 5 DLU: 77

558.685-054 RED-LEAD BURNER (paint & varnish) alternate titles: oxide-furnace tender
Tends furnaces that convert litharge (yellow- or orange-colored monoxide) and lead tailings into red lead (lead oxide) for use in products, such as storage batteries, paints, and ceramics: Ignites gas burners in furnace. Reads temperature gauge and adjusts controls to regulate flow of gas to maintain specified furnace temperature. Starts conveyor leading to furnace and dumps specified quantity of litharge or lead tailings onto conveyor. Starts furnace pan rotating to ensure uniform heating of material. Pulls lever to open door in bottom of furnace to drop powdered lead oxide onto conveyor leading to grinder. May test lead oxide, using beaker, acid, balance scale, and electric hotplate.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

558.685-058 CHEMICAL RECLAMATION EQUIPMENT OPERATOR (electron. comp.)
Tends equipment that distills printed circuit board (PCB) processing solvents from PCB processing waste solutions and etches gold from PCBs to reclaim gold and solvents: Places gold covered board section in drum and inserts drum in agitation system of rinse tank manually, and presses button to start and stop agitation at specified interval to rinse boards. Removes drum from rinse tank and places drum in agitator system of reclamation tank. Pushes button to start and stop agitator at specified interval to remove gold from boards. Removes drum from reclamation tank and places drum in agitator system of rinse tank. Pushes button to start and stop agitation system at specified interval to rinse boards. Removes drum from rinse tank and places PCBs into barrel. Pushes switch on rinse tank to pump gold solution from tank into empty barrel. Pushes buttons on still to start pumps and equipment that distill PCB processing solvents from solutions. Observes gauges on panel indicating collection barrels are full and presses button to shut off system.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 86

558.685-062 CHEMICAL OPERATOR II (chemical) alternate titles: reactor operator
Tends equipment units or semiautomatic system that processes chemical substances into industrial or consumer products, such as detergents, emulsifiers, salts, bleaching agents, acids, and synthetic resins: Dumps specified amounts of solid materials into heating vessels or blending tanks, and turns valves to feed liquid and gaseous materials through equipment units, or sets controls in specified sequence on control panel to start automatic feed. Turns valves or moves controls to maintain system at specified temperature, pressure, and vacuum levels. Observes chemical reactions; monitors gauges, signals, and recorders, and receives notification from control laboratory, supervisor, or other workers to make specified operating adjustments. Draws samples of products for laboratory analysis. Maintains log of gauge readings and shift production. May perform chemical tests on product to ensure conformance with specifications, using standard test equipment, materials, and procedure. May be designated according to substance processed as Low-Chloride Soda Operator (chemical); Salt-Plant Operator (chemical); Sodium-Methylate Operator (chemical); equipment tended as Styrene-Dehydration-Reactor Operator (chemical); Tower Operator (chemical) II; or reaction produced as Emulsification Operator (oils & grease); Precipitation Equipment Tender (chemical).
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 80

558.686-010 FURNACE HELPER (chemical)
Assists FURNACE OPERATOR (chemical) in decomposing salt cake to form hydrogen chloride: Shovels salt cake into furnace on startup. Removes scale from walls of furnace, using handscrapers, and cleans conveyors, salt-cake cooler, and crusher with brushes and handtools. May start motors and move controls as instructed to regulate flow of coolants, action of salt-cake crusher, and speed of conveyors that transfer salt-cake between furnace building and storage towers or bins. May drive tractor to transfer salt cake about plant. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

558.687-010 BLEACH PACKER (chemical) alternate titles: charger
Starts conveyors that automatically convey slaked lime to chlorinating chamber where it is transformed into bleaching powder. Spreads lime uniformly over chamber floor, using shovel or wood spreader, and rakes spread lime to furrow layer, exposing maximum surface area for chlorination. Shovels bleaching powder through chutes into containers, and closes containers preparatory to storage or shipment.
GOE: 06.04.11 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

559 OCCUPATIONS IN PROCESSING OF CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, AND RELATED PRODUCTS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with processing chemicals, plastics, synthetics, rubber, paint, and related products.

559.130-010 CHEMICAL-PROCESSING SUPERVISOR (pharmaceut.) alternate titles: synthetic department supervisor
Supervises and coordinates activities of workers engaged in processing organic chemicals, plant and animal tissue, and solvents for use in manufacturing medications. Sets up and operates mixing, drying, pulverization, distillation, filtration, separation, extraction, and crystallization equipment to produce test samples of new products. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 8 DLU: 77

559.130-014 SUPERVISOR, FERTILIZER PROCESSING (chemical)
Supervises and coordinates activities of workers engaged in controlling equipment to produce nitric acid from anhydrous ammonia and reprocessing nitric acid to produce solid and liquid fertilizers and fertilizer materials: Directs workers in setting up equipment according to product specifications, using knowledge of equipment functions and chemical processes involved. Observes recording-instrument charts, flowmeters, and gauges to determine processing conditions, and analyzes laboratory test results to verify conformance of product to specifications. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.130-018 SUPERVISOR, RECORD PRESS (recording)
Supervises and coordinates activities of workers engaged in pressing, audio-testing, and inspecting phonograph records: Directs workers in setting up record presses. Examines records for defects, such as bubbles and dents and analyzes data compiled in audio-testing to determine cause of defects. Directs workers in changing record compound, ordering new dies, or cleaning dies to correct defects. Adjusts press controls to regulate water and steam pressure or length of process cycle, according to type of record compound. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.130-022 SUPERVISOR, TILE-AND-MOTTLE (fabrication, nec)
Supervises and coordinates activities of workers engaged in weighing, crushing, and mixing ingredients, and operating machines to manufacture asphalt and vinyl asbestos floor tile: Examines product to identify contaminated, defective, or substandard material. Trains new workers in job duties. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

559.131-010 PHARMACEUTICAL-COMPOUNDING SUPERVISOR (pharmaceut.)
Supervises and coordinates activities of workers engaged in compounding inert and active ingredients to produce pharmaceutical products in tablet, granule, ampoule, liquid, powder, and ointment form. Determines processing methods necessary to achieve product of specified standard, using knowledge of chemical reactions and pharmaceutical processing methods and procedures. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

559.131-014 QUALITY-CONTROL SUPERVISOR (plastic-synth.)
Supervises and coordinates activities of workers engaged in testing quality of polyethylene sheet and tubular film: Selects and schedules tests to measure factors, such as color intensity, tensile strength, optical distortion, and printability of film, according to job specifications and procedure manuals. Trains new workers in use of test equipment, such as fadometer and burst tester. Reviews new product specifications, and conducts experimental tests for strength, permeability, and other factors, using weights, acid, ink, and other materials to determine quality control procedures necessary to meet new specifications. Prepares reports of experimental test results for use by management personnel. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.131-018 TNT-LINE SUPERVISOR (chemical)
Supervises and coordinates activities of workers engaged in production of TNT. Directs workers in mixing acids and toluene in nitrators, recovering nitric acid from spent solutions, and packing finished product. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-010 ACID SUPERVISOR (chemical)
Supervises and coordinates activities of workers engaged in operation of equipment to process, store, and mix acids for use in making explosives, such as nitroglycerin, TNT, and dynamite: Trains workers in operation of equipment. Inspects equipment and observes workers to ensure safe work practices. May supervise production of ammonium nitrate crystals and drying of dynamite-filler ingredients. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-014 CALENDER SUPERVISOR (plastic-synth.)
Supervises and coordinates activities of workers engaged in mixing and blending plastics materials according to formulas, screening plastics dough to remove lumps and foreign objects, rolling dough into sheets of specified width and thickness, and inspecting product for conformance to specifications: Trains new employees. Observes meters, gauges, and recording-instrument charts to verify process specifications. Examines product for defects and measures thickness of sheets with micrometer. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-018 CATALYST OPERATOR, CHIEF (chemical) alternate titles: catalyst plant supervisor
Supervises and coordinates activities of workers engaged in operation of equipment, such as impregnators, precipitators, dissolvers, crushers, washers, driers, and reduction furnaces, to prepare catalysts used in production of butadiene, styrene, and edible oils: Performs titration tests and takes pH readin of compounds to determine amounts of acids and neutralizers to be added compounds for conformance to formula specifications. Calculates amount catalyst produced, using laboratory reports and computations from standar chart. Directs workers pumping nitrogen through furnace lines to release hydr gen to prevent explosions. Trains workers in machine operation. Performs oth duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-022 FINISHING-AREA SUPERVISOR (plastic-synth.)
Supervises and coordinates activities of workers engaged in operating coag lation tanks, vacuum filters, atmospheric driers, hammer mills, calender m chine, and cutting, stacking, and wrapping machines to convert synthetic-rubb latex to crumbs (solids) and to prepare rubber for shipment: Observes mete and recording-instrument charts to follow progress of process reactions, veri process specifications, and diagnose malfunction. Inspects operating conditi of machinery and equipment and examines product to detect equipment ma functions. Trains workers in operation of equipment. Performs other duties described under SUPERVISOR (any industry) Master Title. May supervi workers engaged in coagulation, filtration, and drying activities only and designated Coagulating-Drying Supervisor (plastic-synth.).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.132-026 HEAD OPERATOR, SULFIDE (chemical)
Supervises and coordinates activities of workers engaged in tending catalyt reactors, continuous stills, and auxiliary equipment, such as pumps, compre sors, heaters, scrubbers, strippers, separators, condensers, and coolers, produce organic sulfur chemicals from materials, such as sulfur, methane ga alcohols, and olefins: Trains workers in operation of equipment. Observes flow meter, gauges, and recording-instrument charts to verify conformity of proces with specifications. Examines equipment for malfunctions, such as excessiv wear and leaks. Performs other duties as described under SUPERVISOR (an industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.132-030 HEATING-AND-BLENDING SUPERVISOR (chemical) alternate titles: mixing-and-dispensing supervisor
Supervises and coordinates activities of workers engaged in heating and mixing chemical ingredients to make cleaning and polishing compounds: Schedule utilization of equipment, such as agitation, blending, and heating kettles an storage tanks, to meet production schedules. Trains workers in operation o equipment. Observes appearance and reaction of chemical ingredients durin heating and blending process to detect deviations from standard. Obtains samples of product for quality control laboratory. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 8 DLU: 77

559.132-034 MILL SUPERVISOR (nonmet. min.)
Supervises and coordinates activities of workers engaged in grinding ores separating graphite from sand and other impurities by flotation processes, an drying finished graphite: Reads meters and gauges and observes operating condition of equipment and appearance of product in various stages of process t detect malfunction. Reviews laboratory test results to resolve problems affectin grade and purity of product, and recovery rate from ores. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-038 NITROGLYCERIN SUPERVISOR (chemical)
Supervises and coordinates activities of workers engaged in nitrating glycerine with nitric acid to make nitroglycerin, separating, washing, and neutralizing operations, and delivering nitroglycerin to dynamite mix house. Trains workers in operating equipment and instructs workers in safety procedures. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-042 PROCESS-AREA SUPERVISOR (plastic-synth.) alternate titles: kettle operator, head; mill operator, head; poly-area supervisor
Supervises and coordinates activities of workers engaged in preparing chemical solutions and in operating purification units, reaction vessels, and driers in polymerization of raw materials, such as synthetic rubber or resin: Plans preparation of chemical solutions and rate of flow of materials through reaction vessels to maintain continuous flow of polymer through process. Observes control-panel instruments to verify conformity of reaction and monomer-recovery process to specifications. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to activity of workers supervised as Drier Operator, Head (plastic-synth.); Monomer-Recovery Supervisor (plastic-synth.); Polymerization Supervisor (plastic-synth.).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-046 PRODUCTION SUPERVISOR, ANHYDROUS AMMONIA (chemical)
Supervises and coordinates activities of workers engaged in operating equipment to produce anhydrous ammonia by catalytic-cracking of methane (natural) gas, compressing gas, removing carbon compounds from gas, and combining

(synthesis) hydrogen and nitrogen into liquid (anhydrous) ammonia: Reads operating reports and tests results to evaluate processing operations and production efficiency. Observes recording-instrument charts, meters, and gauges to verify specified temperatures, pressures, flow rates, and material ratios. Correlates variations in instrument readings to diagnose causes of equipment malfunctions. Moves controls to set or adjust automatic equipment to process specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.132-050 PRODUCTION SUPERVISOR, DEFLUORINATED PHOSPHATE (chemical)

Supervises and coordinates activities of workers engaged in mixing, curing, calcining, cooling, grinding, and screening powdered phosphate rocks in production of defluorinated phosphate (tricalcium phosphate): Observes meters, gauges, and recording-instrument charts to verify specified process conditions, such as flow rates of materials, process temperatures, and operating speed of calciner and feeders. Turns dials to regulate automatic controls of various processes. Orders changes in weight settings at vibrator-scale feeder, burner setting in calciner, and operating speeds of calciner and feeders, according to production requirements. Inspects process and bagging equipment for malfunctions. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-054 SUPERVISOR I (chemical)

Supervises and coordinates activities of workers engaged in making organic chemical products: Computes quantities of chemicals required for specific batches, following laboratory formulas. Verifies processing of chemical products at specified checkpoints to ensure that formulas are followed, pressure and temperature specifications are within tolerance, and chemical batches are within standard limits. Trains employees in job duties. May test chemical batches for acidity, alkalinity, and solubility, using standard test equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to process as Supervisor, Color Making (chemical); Supervisor, Flushing (chemical); Supervisor, Intermediates (chemical).
GOE: 06.01.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-058 SUPERVISOR (rubber reclaim.) alternate titles: devulcanizer, head; hog-room supervisor; shipping-room supervisor

Supervises and coordinates activities of workers engaged in processing scrap rubber into reclaimed rubber: Analyzes production schedules and assigns workers to activities, such as grinding, straining, devulcanizing, drying, refining, and inspecting. Trains employees in work methods and procedures. Inspects reclaimed rubber for conformance to specifications and orders reprocessing if required. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to activity as Devulcanizer Inspector (rubber reclaim.); Final-Inspection Supervisor (rubber reclaim.); Grinding-Room Inspector (rubber reclaim.); Millroom Supervisor (rubber reclaim.); Rubber-Compounder Supervisor (rubber reclaim.).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

559.132-062 SUPERVISOR, ALUM PLANT (chemical)

Supervises and coordinates activities of workers engaged in producing alum liquor (aluminum sulfate) by continuous process reaction (digestion) of sulfuric acid with powdered bauxite ore: Requisitions bauxite ore from other company plants and schedules required delivery dates. Reads operating reports showing temperature, specific gravity, and flow-rate readings to verify specified process conditions. Inspects equipment for mechanical defects and malfunctions. Trains new employees in operation of equipment. May study technical papers to plan process improvements, and diagrams changes, using drafting instruments. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-066 SUPERVISOR, BONE PLANT (chemical)

Supervises and coordinates activities of workers engaged in producing boneblack (animal charcoal), bonemeal, bone flour, and grease by extracting, crushing, grinding, screening, and charring bones: Trains new employees in machine operation. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.132-070 SUPERVISOR, CD-AREA (chemical) alternate titles: cd-manufacturing supervisor

Supervises and coordinates activities of workers engaged in converting monovinylacetylene to chlorobutadiene (chloroprene) for subsequent polymerization to neoprene rubber. Trains new workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

559.132-074 SUPERVISOR, COOK HOUSE (chemical)

Supervises and coordinates activities of workers engaged in making and dehydrating glue made from skins, splits, fleshings, and trimmings: Directs loading of stock into cooking vats. Estimates amount and type of stock and specified cooking time. Observes operation of filters, evaporators, and driers to verify maximum production at specified level of quality. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-078 SUPERVISOR, DEHYDROGENATION (chemical; petrol. refin.) alternate titles: catalyst supervisor; dehydrogenation operator, head

Supervises and coordinates activities of workers engaged in operation of preheat furnaces, catalytic reactors, quench and stripper towers, absorbers, stabilizer, rerun continuous stills, and auxiliary equipment, such as inert-gas generating system, condensers, heat exchangers, pumps, compressors, and blowers to produce petrochemicals, such as butadiene, styrene, butylene, and ethylbenzene: Trains workers in operation of equipment. Coordinates operation of various units in system to ensure required production yields, referring to run sheets, test books, order books, logbooks, and pumping records. Observes recording-instrument charts, flowmeters, and gauges to verify conformity of temperatures, pressures, flow rates, and liquid levels to process specifications. Correlates instrument readings and test results to diagnose process malfunctions. Inspects equipment and cathodic-protection system to detect defects and malfunctions. May be designated according to product as Butadiene Operator, Chief (chemical; petrol. refin.); Ethylbenzene-Cracking Supervisor (chemical; petrol. refin.); Isobutylene Operator, Chief (chemical); Styrene Operator, Chief (chemical; petrol. refin.). Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.132-082 SUPERVISOR, DRY PASTE (chemical)

Supervises and coordinates activities of workers engaged in processing mixtures of flour and water, according to formulas, to produce dry wallpaper pastes: Directs workers in mixing slurries (milk), and drying, pulverizing, and packaging pastes. Feels paste flakes and reads test results to detect causes of deviation of product from prescribed quality standards. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

559.132-086 SUPERVISOR, ESTERS-AND-EMULSIFIERS (chemical)

Supervises and coordinates activities of workers engaged in compounding, blending, and reacting fatty acids and other chemicals to produce industrial esters and emulsifiers: Reads production orders and specifications and plans operating procedures. Assigns workers to duties, such as controlling compounding, reacting, and flaking equipment, and packing finished products. Explains duties to inexperienced workers and assigns them to work with experienced operators during training period. Reads laboratory reports, and orders process equipment changes as necessary to meet quality standards. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-090 SUPERVISOR, FERTILIZER (chemical)

Supervises and coordinates activities of workers engaged in mixing, weighing, and bagging fertilizer materials: Directs workers in receiving and storing chemicals and other ingredients. Maintains inventory of tools, equipment, and materials in storage. Directs workers in bagging and weighing finished product. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

559.132-094 SUPERVISOR, FURNACE PROCESS (chemical)

Supervises and coordinates activities of workers engaged in producing various types of carbon black by partial combustion of crude oil or natural gas, or mixtures of both, in furnace-process plants. Interprets process specifications to subordinates according to types of carbon black to be produced. Observes meters and gauges and reviews operating reports to verify control of process. Trains workers in furnace operation. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-098 SUPERVISOR, GLYCERIN (soap & rel.)

Supervises and coordinates activities of workers engaged in processing oils to produce fatty acids and glycerin: Reads laboratory test reports, analyzes causes of deviation from specifications, and orders changes in time, temperature, or flow rate to bring product into conformance with standards. Demonstrates duties to new workers and assigns experienced operator to work with them during training period. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

559.132-102 SUPERVISOR, INSECTICIDE (chemical)

Supervises and coordinates activities of workers engaged in processing chemical ingredients to produce insecticide: Reads production orders to determine product specifications and raw material requirements. Assigns workers to chemical processing equipment, such as mixing tanks, reaction chambers, condensers, flake-forming cylinders, and milling machines. Issues processing instructions for control variables, such as temperature, pressure, and material flow rate. Reviews laboratory reports and orders equipment adjustments to produce product to quality standards. Trains new workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-106 SUPERVISOR, LIQUEFACTION (chemical)
Supervises and coordinates activities of workers engaged in compressing and liquefying gases, such as oxygen, chlorine, and nitrogen, and in filling tank cars, cylinders, or storage tanks with gases. Trains new workers. Performs duties as described under SUPERVISOR (any industry) Master Title. May be designated according to gas processed as Supervisor, Chlorine-Liquefaction (chemical).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-110 SUPERVISOR, LITHARGE (paint & varnish) alternate titles: furnace-room supervisor
Supervises and coordinates activities of workers engaged in oxidizing, drying, and grinding lead to produce litharge. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-114 SUPERVISOR, PAINT (paint & varnish)
Supervises and coordinates activities of workers engaged in mixing, grinding, thinning, tinting, cooking, or clarifying pigments and other ingredients used in making paints and related products: Plans production schedules to coordinate departmental activities. Verifies batch tickets for compliance with master formula. Calculates batch quantities to ensure utilization of production capacity. Evaluates laboratory control-test results and tests batches of paint, using equipment such as grind-gauge, colorimeter, and viscometer, to verify adherence to specifications. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to activities of workers supervised as Supervisor, Grinding (paint & varnish); Supervisor, Mixing (paint & varnish); Supervisor, Thinning-Tinting (paint & varnish).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

559.132-118 SUPERVISOR, PHOSPHORUS PROCESSING (chemical)
Supervises and coordinates activities of workers engaged in oxidation and hydration of elemental phosphorus, mixing soda ash with phosphoric acid to produce disodium phosphates, and drying, calcining, and cooling phosphate mixture to produce sodium tripolyphosphate: Trains employees in operation of equipment. Reviews reports and observes recording-instrument charts, flowmeters, and gauges to verify specified operating conditions of equipment, and to diagnose equipment malfunctions. Inspects equipment to detect mechanical defects and malfunctions. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.132-122 SUPERVISOR, PIGMENT MAKING (chemical) alternate titles: supervisor, color making
Supervises and coordinates activities of workers engaged in grinding, dispersing, filtering, drying, and mixing chemicals to produce color pigments: Inspects mechanical equipment and pipelines for defects. Adjusts meters, gauges, and automatic controls, and repairs equipment, using handtools. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to function as Color Control Supervisor (chemical); Color-Making Supervisor (chemical); Drying-Room Supervisor (chemical); Filter-Press Supervisor (chemical); Grinding-Room Supervisor (chemical).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-126 SUPERVISOR, REFINING (chemical)
Supervises and coordinates activities of workers engaged in refining salt: Reads production schedule to determine product specifications such as type and quantity of salt to be processed, refining sequences, and formulas for mixing salt with additives. Directs workers in mixing, milling, and screening of salt and coordinates flow of finished product to packaging and bulk-loading stations according to shipping schedule. Trains workers in operation of machines and equipment. May direct workers in packaging product. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-130 SUPERVISOR, TOILET-AND-LAUNDRY SOAP (soap & rel.)
Supervises and coordinates activities of workers engaged in manufacture of bar, granular, and liquid soap: Requisitions materials, such as acids, dyes, perfumes, tallow, and packaging materials. Analyzes laboratory reports on in-process materials to determine changes in operating conditions required to resolve processing problems, such as excessive alkalinity or off-color materials. Examines finished product to determine conformance to specifications. Trains workers in machine operations. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.132-134 SUPERVISOR, VARNISH (paint & varnish) alternate titles: tankroom supervisor
Supervises and coordinates activities of workers engaged in cooking, thinning, filtering, storing, and blending gums, resins, and oils to produce varnish and related products: Plans production schedules to coordinate cooking, thinning, filtering, storing, blending, and filling operations, according to processing time and availability of equipment, materials, personnel, and storage facilities. Converts master-formula quantities to smaller batch amounts, according to departmental production capacity. Reviews test results of viscosity and orders specified thinners to be added to varnish. Trains new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.132-138 TRANSFER-AND-PUMPHOUSE OPERATOR, CHIEF (chemical) alternate titles: pumphouse operator, chief; terminal supervisor
Supervises and coordinates activities of workers engaged in receiving, storing, and pumping raw chemical materials to production units, and in loading finished products into tank cars and tank trucks: Trains workers in new job assignments. Examines storage tanks, loading racks, and pumping equipment to ensure safe working conditions and to detect mechanical defects and malfunctions, such as hot bearings, excessive wear, and leaks. Observes meters and gauges to verify specified flow rates, temperatures, and pressures. Directs workers in transfer of raw materials from tank cars to specified storage areas, spotting of cars at unloading and loading stations, and loading finished products into tank cars. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.134-010 QUALITY-CONTROL SUPERVISOR (plastic prod.)
Supervises and coordinates activities of workers engaged in inspecting incoming materials, inprocess molded plastic components, and finished fabricated plastic products to ensure adherence to company quality standards and customer specifications: Draws sketch and writes inspection procedure for each new item to be fabricated, indicating areas to be examined, measuring devices to be used, and maximum and minimum acceptable dimensions. Distributes sketch and procedure to engineering, production control, and inspection work stations. Inspects molded components following first-run production of new item, using gauges and shadow comparator, and advises technician of type of defects noted and need for machine adjustment. Repeats inspection procedure until product meets quality standards and specifications are attained. Confers with customer representative to resolve complaints. Notifies suppliers and subcontractors of reasons for rejection of materials and parts received. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: S GED: R4 M2 L4 SVP: 4 DLU: 86

559.134-014 SUPERVISOR, DRYING AND WINDING (plastic-synth.)
Supervises and coordinates activities of workers engaged in drying polyester chips and winding synthetic fibers: Observes machines, equipment, personnel, and work areas to detect potential safety hazards, and enforces company safety rules. Inspects yarn on takeup machines for defects, such as unspecified yarn diameter. Confers with designated supervisory personnel to discuss matters related to takeup of yarn and drying of chips. Summons maintenance personnel to inspect machine for malfunctions or to repair machine. Usually inspects takeup unit at specified intervals to verify conformance to standard of polymer extrusion characteristics and yarn takeup characteristics. Turns valve and thermostat knobs to adjust polymer melt zone of extruders to conform to standard temperature. Prepares reports on areas, such as yarn waste, accidents, employee absenteeism, and work time records. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 86

559.137-010 SALVAGE SUPERVISOR (paint & varnish)
Supervises and coordinates activities of workers engaged in salvaging defective or obsolete paint products: Confers with supervisors of sales, cost, production, and testing departments to determine sales possibilities for nonsalvageable paint, costs of reprocessing salvageable products, and reasons for return of goods by customers. Prepares work instructions and department assignments for reprocessing, reworking, or selling salvaged material. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.137-014 SUPERVISOR II (rubber goods)
Supervises and coordinates activities of workers engaged in manufacture of rubber goods: Inspects products to ensure adherence to specifications. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to process involved as Curing Supervisor (rubber goods); Finishing Supervisor (rubber goods); Millroom Supervisor (rubber goods); Rubber-Compounder Supervisor (rubber goods); Stock-Preparation Supervisor (rubber goods).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.137-018 SUPERVISOR, BLEACH (chemical)
Supervises and coordinates activities of workers engaged in processing lime to produce bleaching powder. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

559.137-022 SUPERVISOR, CHANNEL PROCESS (chemical)
Supervises and coordinates activities of workers engaged in producing carbon black by channel process [partial combustion of natural gas in burner buildings (hot houses)], pelletizing carbon black in rotating drums, and bagging and shipping carbon black. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.137-026 SUPERVISOR, EVAPORATOR (chemical)
Supervises and coordinates activities of workers engaged in producing concentrated caustic soda or potash, liquid carbonate of potash, and caustic potash.

Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

559.137-030 SUPERVISOR, GELATIN PLANT (chemical)
Supervises and coordinates activities of workers engaged in processing skins, splits, and trimmings to produce gelatin: Directs workers engaged in chopping, washing, liming, and cooking of stock, according to procedures specified for type of raw material in process. Estimates weight of stock in vats and specified amount of lime to be used in cooking. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

559.137-034 SUPERVISOR, GLUE SPECIALTY (chemical)
Supervises and coordinates activities of workers engaged in making dextrin, casein, polyvinyl, and resin glues: Directs workers in measuring, weighing, and mixing chemicals according to formula, cooking dry glue and various other ingredients, and packaging finished product in steel or fiber drums, or paper cartons. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.137-038 SUPERVISOR, INSPECTION (plastic-synth.) alternate titles: process control supervisor
Supervises and coordinates activities of workers engaged in inspecting and storing rolls of cellophane. Directs workers in work procedures. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.137-042 SUPERVISOR, PUTTY AND CAULKING (paint & varnish)
Supervises and coordinates activities of workers engaged in manufacturing putty or caulking compound: Selects mixing formula used to produce putty or caulking compound. Removes samples from mixing machine and examines blend of oils and powders. Examines incoming shipments of raw materials to verify compliance with order specifications. Maintains inventory files to record amounts of raw materials and finished products in warehouse. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

559.137-046 SUPERVISOR, ROCKET PROPELLANT PLANT (ordnance)
Supervises and coordinates activities of workers engaged in mixing and loading (casting) rocket fuel in rocket motor cases: Reads meters, gauges, and recording-instrument charts to verify process conditions. Inspects rocket motor cases, machinery, and equipment for defects or malfunction. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

559.137-050 SUPERVISOR, TANK CLEANING (paint & varnish)
Supervises and coordinates activities of workers engaged in cleaning tanks, vats, kettles, and chutes used in production of paint, varnish, and related products. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

559.165-010 CHECKER (chemical)
Coordinates activities of workers engaged in loading, operating, and unloading equipment used in production of nitrocellulose, using signal-light system: Moves switches on control panel to illuminate lights above nitrators and wringers to notify workers to load, start, stop, and unload equipment in specified sequence. Records charging and discharging times to maintain records of nitrating cycle.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.167-010 CD-STORAGE-AND-MATERIALS-MAKE-UP OPERATOR, HEAD (chemical)
Coordinates activities of workers engaged in preparing chemical solutions used in production of synthetic rubber and in maintaining chlorobutadiene storage system: Schedules weighing of materials and preparation of solutions to maintain adequate flow of ingredient materials. Observes operating procedures and preparation of solutions to ensure that schedules are met and that solutions are prepared according to specifications. Inspects equipment to detect malfunctions and arranges for repairs as necessary. Keeps inventory records of materials received and consumed.
GOE: 06.02.11 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

559.361-010 LABORATORY TECHNICIAN, PHARMACEUTICAL (pharmaceut.)
Prepares vaccines, biologicals, and serums for prevention of animal diseases: Inoculates fertilized eggs, broths, or other bacteriological media with organisms. Incubates bacteria for specified period and prepares vaccines and serums by standard laboratory methods. Tests vaccines for sterility and virus inactivity. Prepares standard volumetric solutions and reagents used in testing.
GOE: 02.04.02 STRENGTH: L GED: R5 M4 L4 SVP: 6 DLU: 78

559.362-010 ALUM-PLANT OPERATOR (chemical) alternate titles: alum mixer
Controls equipment to produce alum liquor (aluminum sulfate) in continuous process reaction of sulfuric acid with powdered bauxite: Notifies other workers to unload bauxite from boxcars into hopper of crusher. Starts crusher, mill, and conveyors to replenish storage supply of powdered ore. Observes flowmeters and turns valves to regulate flow of powdered ore, acid, and weak alum liquor into first digester in specified proportions to produce mixture of prescribed specific gravity and through other digesters where chemical reaction occurs and resultant aluminum sulfate liquor is settled and diluted to specified concentration. Tests samples from each digester, using hydrometer and thermometer, to verify specific gravities and temperatures. Turns valves to adjust flow of steam through digester jackets and proportions of materials fed into first digester to regulate temperatures and specific gravities accordingly. Pumps finished alum liquor into storage tank and weak alum liquors into settling tanks (thickeners) for recycling into process. Records temperatures, specific gravities, and flow rates of materials in operating log and level of alum liquor storage tanks on inventory records.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.362-014 FINISHING-AREA OPERATOR (plastic-synth.)
Controls semiautomatic or automatic machines and equipment, such as blenders, mixers, extruders, pelletizers, pumps, blowers, and conveyors, from control panel to produce pellets from plastic flakes: Moves controls on panel to start and stop equipment, to set timing devices for operating cycles, and to direct flow of materials on conveyor. Observes thermometers, gauges, and meters to verify process conditions. Records readings in logs. Turns valves to regulate temperature, pressures, and rate of flow of materials. Inspects equipment for mechanical defects. Gives directions to workers in blending, mixing, and extruding pelletizing materials, and in repairing machines and equipment.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

559.362-018 LIQUEFACTION-PLANT OPERATOR (chemical) alternate titles: chlorine operator; chlorine-plant operator; liquefier; liquid-chlorine operator
Controls equipment to liquefy and compress chlorine gas: Ascertains demand and disposition of product and equipment malfunctioning from logsheet. Adjusts equipment to control temperature, pressure, vacuum, level, and flow rate in refrigerating system and compressors to maintain prescribed flow of gas. Calculates ratio of chlorine to hydrogen, using burette and other testing apparatus, and notifies production workers of deviations from specifications. Meters out sulfuric acid sealant to maintain specified level in compressors, drying towers, and pumps. Records operational and test data, and calculates daily averages of readings on logsheet. May direct workers engaged in filling of cylinders and other containers. May be designated according to specialized equipment controlled as Compressor Operator (chemical) I; Refrigeration Operator (chemical).
GOE: 06.02.12 STRENGTH: L GED: R3 M3 L2 SVP: 4 DLU: 77

559.362-022 MVA-REACTOR OPERATOR, HEAD (chemical)
Controls catalytic reactors and auxiliary equipment to produce monovinylacetylene and to refine, vaporize, and transfer product for use in neoprene rubber manufacture: Starts pumps, reactors, and blowers. Observes gauges and recording instruments and moves controls to regulate flow of gases and liquids, and to maintain temperatures, pressure, and liquid levels in preheaters, reactors, condensers, brine driers, and distillation columns within specified limits. Turns valves to regulate concentration of acid and water in catalyst reactor to maintain efficient operating conditions, according to knowledge of process. Starts pumps to transfer acid to feed and drip tanks and to admit water to packing in acid scrubbing tanks. Cleans reactors, using mechanical reamer. Records gauge readings in operating log. Directs activities of MVA-REACTOR OPERATOR (chemical) in tending equipment and in drawing and testing product samples.
GOE: 06.02.11 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 77

559.362-026 PLANT OPERATOR, FURNACE PROCESS (chemical)
Controls semiautomatic furnaces and auxiliary equipment to produce carbon black by partial combustion of crude oil, natural gas, or mixture of both: Notifies UNIT OPERATORS (chemical) to start or shut down equipment units, such as reactors (furnaces), quenchers, precipitators, cyclones (grit collectors), and filters to maintain efficient production. Monitors pyrometers, recording meters, and other gauges to verify process conditions as indicated by control panel instruments. Turns valves and moves switches on central control panel to regulate temperature, pressure, and flow of fuel and air in reactors, and to transfer accumulated carbon black through auxiliary units to produce carbon black of specified type and grade. Tours plant area to verify that equipment is operating as indicated by central control panel. Records instrument readings in operating log and reports abnormal conditions to supervisory personnel. Gives directions to crew during manual operation of equipment to maintain production or verify accuracy of instrumentized controls.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

559.362-030 ROLL TENDER (chemical)
Controls equipment to mill flaked adhesive from slurry of flour and water: Turns valves or moves levers or side gates to admit steam into pressure cooker to cook milk (slurry of flour and water). Opens discharge line after specified period, and signals worker to pump milk paste onto heated rollers that dry paste. Adjusts distance between rollers to maintain specified thickness of paste and activates knives that cut paste into flakes. Opens hopper chutes to dump flakes into rotating screen cylinder that sifts flakes and transfers them to storage bins. Measures temperature of milk at specified intervals, using thermometer, and tests viscosity of milk, using viscometer. Determines moisture content of flakes by feeling them or by using moisture meter. Weighs standard cupful of

paste to determine its density and adjusts water and steam valves to regulate density. Inspects equipment to detect malfunctions.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.362-034 TOWER OPERATOR (soap & rel.)

Controls heated-air tower from control panel to make variety of soap powders by atomizing liquid soap: Starts pumps to regulate flow of oil, steam, air, and perfume to tower or collectors. Observes temperature, pressure, and flowmeter recorders to ensure uniform product. Keeps log of tower operations. Weighs sample, dries it in heated chamber, and reweighs sample to calculate moisture loss and percentage of moisture in powder. Inspects operating units, such as towers, soap-spray storage tanks, scrubbers, collectors, and driers, to ensure all are functioning and to maintain maximum efficiency in powder-producing towers. Gives directions to workers engaged in operating machinery to regulate flow of material and product. May oversee cleaning of towers, strainers, and spray tips. May make such repairs as replacing damaged strainers.
GOE: 06.02.18 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

559.364-010 FURNACE-STOCK INSPECTOR (elec. equip.) alternate titles: baked-and-graphite inspector

Determines density and resistance of carbon samples which have been graphitized and inspects graphitized stock after removal from furnace: Marks samples of green stock before graphitization to indicate their position in furnace. Receives samples from FURNACE UNLOADER (elec. equip.) before remaining charge is unloaded. Cleans samples with scraper and steel wool and weighs them. Measures samples in several places with diameter rule to obtain average diameter. Places samples on resistance-testing device, sets meter to allow specified number of amperes to pass through sample, and records readings from millivoltmeter. Calculates average density and average resistance from weight, average diameter, and millivolt reading, using slide rule and formula. When furnace is unloaded, marks pieces with resistance grade number of samples. Inspects cleaned stock for pits, cracks, burrs, and bends. Determines extent of damage from cracks and imperfections, and marks salvageable pieces for cutting to next largest possible size. Directs workers to remove inspected pieces.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L2 SVP: 4 DLU: 77

559.367-010 QUALITY-CONTROL TESTER (paper goods; plastic-synth.)

Inspects and tests polethylene and cellophane sheets or bags for surface defects, dimensional accuracy, strength, and clearness of print to verify conformance to specifications, and to assist production personnel in solving quality control problems. Inspects sample sheet to detect surface defects, such as bubbles, pattern defects, and haze variations. Measures thickness of sample, using micrometer, and weighs sample to determine compliance to specifications. Tests sample strips in pull-tester machine, impact tester, and stress-flex test machine to determine strength, tenacity, and flexibility. Places adhesive paper on printed section, pulls paper from printed section, and examines adhesive for ink to verify stability of print. Writes inspection and testing reports and confers with production personnel to determine cause of deviations from qualitative standards.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

559.381-010 INSPECTOR (plastic prod.; plastic-synth.) alternate titles: customer-return inspector; process inspector

Inspects and tests plastic sheets, rods, tubes, powders, or fabricated articles for uniformity of color, surface defects, hardness, and dimensional accuracy, following plant specifications or blueprints and using measuring instruments and test equipment: Examines surface of product for defects, such as scratches, burns, and discolorations. Positions transparent sheet between light and calibrated screen and observes shadow pattern of sheet projected on screen to determine optical distortion. Verifies weight and dimensions of product, using scales, gauges, calipers, micrometers, and templates. Compares color of product with color standard. Determines hardness and structural strength of product, using acid bath, burst tester, and hardness tester. Records test data, and grades and labels product according to type of defect. May investigate cause of recurring defects and recommend changes in production procedures. May file, buff, or sand product to remove defects.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

559.381-014 RUBBER TESTER (rubber goods; rubber tire)

Tests samples of milled rubber compounds and finished rubber goods, using testing devices, and compares gauge readings against prepared standards, such as charts, graphs, and tables, to verify adherence to specifications: Collects samples of rubber from MIXING-MACHINE OPERATOR (any industry) at prescribed intervals. Mixes and blends sample stock on laboratory warmer mill to obtain desired consistency and tests sample for plasticity, using plastometer. Cures uncured rubber samples in heated mold at specified temperature for designated time and tests its hardness, using durometer. Determines density of cured and uncured stock by weighing samples on scale and testing sample in densimeter. Records test results for use by control laboratory.
GOE: 06.01.05 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

559.382-010 AMMONIA-STILL OPERATOR (steel & rel.) alternate titles: pump-and-still operator

Operates stills, pumps, and related equipment to extract and refine ammonia from ammonia liquor: Adjusts feed valves to regulate flow of liquor and steam to stills and water to condensers and dephlegmator. Reads thermometers and gauges, adjusts valves, and regulates pumps to maintain specified temperatures
and pressures to boil off waste vapors (foul vent) and ammonia. Pumps ammo
nia to saturator for mixing with water to produce liquid ammonia, and pump
ammonia to storage tanks. Pumps waste liquor to sewer. Determines amou
of ammonia in waste liquor and water, using titration test, and adjusts tempera
tures and pressures to reduce loss of ammonia. Keeps record of pressures, tem
peratures, test results, and amount of liquor and steam fed to stills. Ma
produce concentrated ammonia liquor by condensing vapors in water-coole
condensers. Cleans work area, using broom, brushes, and lime.
GOE: 06.02.17 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

559.382-014 CATALYST OPERATOR, GASOLINE (chemical)

Controls machines that combine ingredients, such as sodium silicate, sulfur
acid, water, and caustic soda to make catalysts used in manufacture of high
octane gasolines. Dumps dry ingredients into electric mixing vats and turn
valves to admit prescribed amounts of liquid ingredients. Observes thermom
eters and flowmeters, and adjusts gauges to control temperature and amount o
flow. Turns valves to allow mixture to flow from mixing vats to vacuum filter
to remove excess water. Controls pumps that force mixture through spray-dry
ers where particles of catalyst are formed, and turns dials on control panel t
regulate temperature and speed of spray. Controls pumping of catalyst particle
from bottom of dryers to washer-filters for removal of cation and anion impur
ties. Turns valves to regulate flow of catalyst through hot-air steam dryers an
observes temperature and speed of flow to ensure specified drying. May dra
off samples of mixture for analysis. May keep records of batches processed.
GOE: 06.02.11 STRENGTH: H GED: R3 M3 L2 SVP: 5 DLU: 77

**559.382-018 CHEMICAL OPERATOR III (chemical) alternate titles: re
actor operator**

Controls equipment units or system that processes chemical substances int
specified industrial or consumer products, according to knowledge of operatin
procedures, chemical reactions, laboratory test results, and correlation of proc
ess instrumentation: Reads plant specifications to ascertain product, ingredient
and prescribed modifications of plant procedures. Starts automatic feed of soli
or semisolid materials through equipment units, such as heating vessels an
mixing tanks; or dumps preweighed ingredients into tanks, hoppers, or ont
conveyor. Moves controls to regulate feed of liquids and gases through equip
ment in specified timing and sequence, or starts automatic feed. Sets up an
adjusts indicating and controlling devices, such as gas analyzers, recordin
calorimeters, and radiographic detecting or gauging instruments to facilitate si
multaneous analysis and control of process conditions. Observes gauges, sig
nals, and recording instruments, turns valves, and moves controls to regulat
temperatures, pressures, and flow of steam, coolant, and chemical constituent
through system to effect prescribed reaction within critical limits, according t
knowledge of equipment and process. Draws samples of product at specifie
stages of synthesis and performs litmus, titration, refractometer, gas-analyse
or other standard tests to determine if reaction is proceeding efficiently and i
conformity with plant standards. Observes color or consistency of produc
through sight glasses, and correlates observations with test results, laborator
analyses, and instrument readings to facilitate regulation of process and produc
tion of standardized product. Maintains log of gauge readings, shift productio
and equipment malfunctions. May patrol area to inspect equipment for leak
and hazards and to record gauge readings. May direct activities of other work
ers assisting in control or verification of process. May be designated accordin
to equipment or system controlled as Caustic-Purification Operator (chemical
Gas-Generator Operator (chemical); Lanolin-Plant Operator (pharmaceut.); Sul
fonator Operator (chemical); or according to product produced as Alkylatio
Operator (chemical; petrol. refin.); Ethylene-Oxide Panelboard Operator (chem
cal), Polymer Operator (plastic-synth.); Sodium-Chlorite Operator (chemical).
GOE: 06.01.03 STRENGTH: M GED: R3 M3 L2 SVP: 7 DLU: 77

559.382-022 GLUE MAKER, BONE (chemical)

Controls pressure, temperature, and water level of cooking tanks, and oper
ates centrifuges and separators, to manufacture animal glue: Admits hot wate
and steam into cooking tanks containing crushed animal bones, following spec
fications [BONE-COOKING OPERATOR (chemical)]. Opens valves to drai
glue and tallow solutions (grease) into separate vats [PRESSURE-TANK OP
ERATOR (chemical)]. Starts centrifuge machine that separates animal oi
(grease) from glue solution [CENTRIFUGE-SEPARATOR OPERATOR (chem
ical)]. Cooks glue solution to evaporate water from glue. Reads gauge of hy
drometer to determine percentage of glue solid in solution. Disassembles plate
of centrifuge, using wrench and hoisting device; and cleans plates, using brus
and abrasives. May weigh and add specified amounts of chemical to preserv
glue. May direct other workers engaged in cleaning tanks or vats.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

**559.382-026 GRANULATOR-MACHINE OPERATOR (pharmaceut.) al
ternate titles: granulator; wet-mix operator**

Operates mixing and milling machines to mix and granulate powdered ingre
dients preparatory to compressing into medicinal tablets: Weighs out and meas
ures ingredients, according to formula and size of batch to be mixed. Start
mixing machine to blend ingredients and adds starch paste, gelatin, or wate
and alcohol solution to mixture to bind ingredients. Breaks up lumps in mix
ture, using spatula or mortar and pestle, spreads mixture onto trays, and place
trays in oven or steam drier at preset temperature. Removes trays and feels ma
terial to ascertain dryness, or tests material with moisture meter to determin
whether batch requires additional mixing or drying. Installs cutting blades an
screens, using handtools, and operates oscillating or comminuting mill to force

mixture through sieves and produce product of specified fineness. May screen granulated mixture to determine size range of granules. May tend ion-exchange equipment to remove mineral salts from water. May tend tumbling barrel or other equipment to mix binders, flavoring oils, and lubricating agents for use in compounding tablets.
GOE: 06.02.11 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

559.382-030 LINSEED-OIL REFINER (oils & grease) alternate titles: refinery operator

Operates equipment that refines raw linseed oil for use in manufacture of paint, lacquers, white lead paste, and high-speed printing ink: Starts pump to transfer raw linseed oil from storage tank into refining tank, and starts agitator paddles. Opens valve to drain settled tar and foreign matter from tank. Opens tank steam valve to heat mixture. Sprays hot water over oil with hose to neutralize acid and allows water to settle. Opens valve to drain water from tank. Starts agitator paddles and adds dry neutralizing ingredients, such as *whiting compound*, powdered magnesia, and common salt. Observes material during refining process to determine if color and consistency meets standards, and removes sample for laboratory tests. Opens valve to permit oil to flow into storage tank. Sets thermostat and steam valve to maintain required temperature in storage tank.
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.382-034 MAKE-UP OPERATOR (chemical) alternate titles: materials-make-up operator; solution-make-up operator

Controls equipment to prepare chemical constituents of synthetic rubber for synthesis by other workers, following formulas and maintaining reactions within prescribed limits: Weighs solid materials according to formula, using scale. Pumps liquid chemicals to metering or weigh tanks. Observes thermometer and recording instruments, and moves heater controls to attain specified temperature in system. Starts agitator and opens valves to regulate admission of chemical agents into mixing tanks in prescribed sequence. Dumps solid materials into tanks to complete reaction. Draws samples of solution for laboratory analysis and titrates sample to determine concentration and facilitate control of materials flow for attainment of product meeting plant standard. Tends auxiliary equipment, such as colloid mills, melt tanks, scrubbers, and homogenizers, to prepare or further process emulsions and dispersions. Regulates flow of rubber constituents to storage or rubber-synthesis areas, according to schedule or indicated plant needs. Maintains records of materials and supplies, shift production, process times and temperatures, and gauge readings for operating log or inventory records. May receive and store materials. May tend tank farm containing liquid chemicals [TANK-FARM ATTENDANT (chemical)]. May clean, inspect, and recharge equipment with materials, such as soda ash or calcium chloride. May be designated according to substance prepared as Emulsion Operator (chemical); Persulfate Make-Up Operator (chemical); or equipment unit operated as Chlorobutadiene-Scrubber Operator (chemical).
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

559.382-038 NAPHTHA-WASHING-SYSTEM OPERATOR (plastic-synth.)

Controls equipment to purge and wash reactors used in polymerization of isobutylene to produce butyl rubber slurry: Starts pumps and agitators. Turns valves to line up streams for wash cycles and to evacuate slop naphtha and trapped gas. Defrosts frozen valves, using steam hose. Turns pump valves to drain refrigerant from reactor chilling jackets into storage drums, to purge chilling jackets with hot refrigerant, and to flush reactor vessels with hot feed stock and flash tanks with steam. Starts pumps to exhaust gases and vapors through flash tanks. Starts pumps and agitators to wash and rinse reactor vessels with hot naphtha. Admits natural gas under pressure to exhaust naphtha from reactors. Observes control panel to verify temperatures, pressures, and flow rates required to return reactors to service. Records operating data in log.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.382-042 PHARMACEUTICAL OPERATOR (pharmaceut.) alternate titles: laboratory technician

Controls equipment and tends machines to produce variety of pharmaceutical and toilet products or ingredients, performing any combination of following duties: Weighs and measures out coating ingredients and coats medicinal tablets [COATER (pharmaceut.) 554.382-010]. Tends mixing machine and heated kettles to prepare specified ingredients for ointments, creams, liquid medications, powders, gums, and similar drug products, adding ingredients according to formulas [COMPOUNDER (pharmaceut.; soap & rel.) 550.685-046]. Tends milling and grinding machines that reduce mixtures to designated sized particles, or grinds materials with mortar and pestle. Prepares granulated products [GRANULATOR-MACHINE OPERATOR (pharmaceut.) 559.382-026]. Tends filter presses, sifting machines, autoclaves, water stills, and related equipment to prepare ingredients for further processing. Operates machine to compress ingredients into tablets [COMPRESSOR (elec. equip.; pharmaceut.) 556.682-022]. Inspects, weighs, and tests hardness of tablets [TABLET TESTER (pharmaceut.) 559.667-010]. May be designated according to substance prepared as Liquid Compounder (pharmaceut.).
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 78

559.382-046 PILOT-CONTROL OPERATOR (chemical; plastic-synth.) alternate titles: fine-chemicals operator; laboratory technician; pilot-plant technician; process operator; research-manufacturing operator

Sets up and operates small-scale chemical production equipment under laboratory conditions to test methods and chemical processes for product development, following specifications and guidance from research chemists or engineers: Sets up production equipment, such as reactors, stills, stripping towers, separators, and blending tanks, using mechanics' handtools and portable power tools. Starts pumps and compressors. Turns valves to regulate equipment temperatures, pressures, flow rates, and liquid levels, following process specifications or instructions of technical personnel. Observes meters and gauges to verify process conditions. Performs standard quantitative or qualitative chemical analyses, such as titration, distillation, caustic-insoluble, and color-measurement tests, to verify process conditions and compile research data. Mixes chemical solutions as directed for use in tests. Prepares operating records and reports of test results. May adjust and repair mechanical and electronic testing equipment, using handtools, circuit diagrams, and maintenance manuals.
GOE: 02.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

559.382-050 SHREDDING-FLOOR-EQUIPMENT OPERATOR (plastic-synth.)

Operates shredding and filtering equipment and pumps to process woodpulp into alkali cellulose: Mounts roll of woodpulp sheeting on unwind stand, and inserts end of roll into shredder. Monitors recording and controlling instruments, and presses buttons and turns valves to regulate speed of pumps and flow of materials through caustic treatment and filtering process. Inspects filters and filter presses, and cleans equipment, using water hose. Records production figures. May operate lift truck to convey pulp rolls from storage area to shredding room.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

559.382-054 SOAP MAKER (soap & rel.) alternate titles: soap boiler

Controls equipment that produces soap according to formula: Opens valves to charge kettle with prescribed amounts of ingredients. Turns valve to admit steam through bottom of tank to boil and agitate mixture. Observes mixture through opening in top of tank to detect variations of color, consistency, and homogeneity of boiling ingredients. Adds soda or water to mixture as directed by laboratory; or determines degree of alkalinity of caustic soda in mixture, using meter, and adds soda or water as required. Observes color, consistency, and homogeneity of product to determine when boiling and agitating cycle are completed, and allows batch to cool and settle for specified period of time. Raises or lowers pumpline to locate separation level of neat (pure soap) and nigre (residue). Starts pump to transfer neat to designated department. Lowers pump line to bottom of tank to transfer residue to reclaiming tank. May calculate amount of ingredients needed to make various soaps, using formula.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L3 SVP: 7 DLU: 77

559.384-010 LABORATORY ASSISTANT, CULTURE MEDIA (pharmaceut.) alternate titles: laboratory aide; technical assistant

Prepares culture media used to develop vaccines and toxoids or to conduct chemical, microscopic, and bacteriologic tests: Measures and weighs ingredients, such as food source, chemicals, preservatives, and vitamins, to prepare growth medium, using scales, graduated flasks, syringes, pipettes, and standard formulas. Adjusts controls of equipment, such as pumps, filters, steam kettles, and autoclaves, to obtain uniform consistency of sterile medium. Removes sample of medium from batch and tests sample for consistency, potency, and sterility, according to standardized procedures. Pours medium or adjusts controls on automatic equipment that dispenses medium into containers, such as petri dishes, test tubes, or storage drums. Seals containers and prepares and affixes identification labels to containers. Maintains production and test records. May order supplies. May mix ingredients to prepare stains used in tests.
GOE: 02.04.02 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 86

559.387-010 INSPECTOR IV (ordnance)

Inspects mixing, drying, storage, packaging, and arrangements for transportation of explosives to determine that processing specifications and safety measures are followed: Observes processing of explosive and notes condition of ingredients for qualities, such as dryness, even texture, and absence of solvents. Verifies accuracy of scales used. Observes transfer of powder from shipping containers to cans used to carry powder through loading process. Examines filled cans for specified packing slip and for colored stripe indicating uses for which powder is intended. Inspects plant periodically for adherence to safety regulations and prepares written reports on compliance with such regulations.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.387-014 INSPECTOR (pharmaceut.)

Inspects pharmaceutical ingredients and products to detect deviations from manufacturing standards: Selects samples of in-process pharmaceutical ingredients, capsules, tablets, and related products for testing, according to prescribed procedures. Weighs samples, using scales, and measures samples, using micrometer. Places specified samples in disintegration baths and observes and times rate of dissolution. Records inspection results on designated forms. Checks incoming purchased pharmaceutical ingredients against invoice to verify conformity of product name, count, and labeling. Carries samples of incoming products to analytical laboratory for quality assurance testing.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 86

559.467-010 TEMPERATURE-CONTROL INSPECTOR (plastic-synth.)

Measures temperature and humidity in vicinity of machine that transforms liquid polymers, cellulose, or other materials into synthetic fibers by dry spinning (forming) process, to detect deviations from plant standards: Takes humidity readings near spinnerettes through which fibers are extruded into air, using

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hygrometer or similar humidity gauge. Reads thermometers and temperature-recording charts on machine. Notifies machine operator or other personnel when temperature or humidity conditions are not within specified range, to facilitate equipment adjustments for production of fibers having prescribed characteristics. May compute humidity readings, using wet-bulb and dry-bulb thermometer and standard procedure. May turn valves or move controls to regulate machine or process conditions, according to changes in temperature or humidity.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.482-010 COMPOSITION-ROLL MAKER AND CUTTER (rubber goods) alternate titles: roll molder

Operates machines to mold and cut composition rubber rollers used to coat or lithograph tinware: Dumps cold rubber in melting reservoir of machine and turns steam valves to melt rubber. Starts agitator to stir melting rubber. Places core of roller in molding chamber of machine, using hoist. Bolts plates on ends of molding chamber, using wrench. Turns air valve to force melted rubber into mold, and turns water valves to cool mold. Removes molded roller and places it in chuck of cutting machine. Installs knives on cutting bar. Positions bar and turns crank to rotate chuck and cut circumference or end of roller. Replaces worn felt coverings on padding rollers. Slips felt jackets over roller core and sews end of felt around roll, using needle. Sorts and stacks rolls in rack. Records number and type of rolls, cores, and materials used, shipped, or received.
GOE: 06.02.07 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.482-014 PUTTY TINTER-MAKER (paint & varnish)

Sets up and operates machines and equipment to mix, color, and mold putty, according to specifications: Weighs and measures ingredients and dumps them into kettle, using power lift. Lowers agitators into kettle of putty mix and starts them to combine ingredients. Adds colored paste paints to putty mix to tint putty to desired shade. Withdraws sample, prepares smear, and compares it with standards. Lowers suction pump into kettle and pumps mix into molding-machine tank. Sets up and operates molding machine that forms putty into crayon-like applicators. Off bears product from discharge chute to boxes or storage shelves. Records mixing, coloring, and molding time on production records.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

559.485-010 WASH-MILL OPERATOR (chemical)

Tends equipment that washes animal stock (animal skins, splits, fleshings, and trimmings) used to make glue and gelatin: Turns valve to start continuous flush of water into tub to wash foreign materials from stock. Turns handwheel to actuate roller that kneads and turns stock in tub. Turns off water and roller after time necessary to reduce foreign material to required level. Drains water from tub and pumps specified amount of acid into tub to kill organisms in stock. Tests concentration of acid-sample in tub, using titration, burette, and pH indicator, and adds acid to tub when necessary. Drains acid from tub after prescribed time and washes stock with water.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

559.562-010 DRIER OPERATOR I (plastic-synth.) alternate titles: roper operator

Operates machines to dry hypalon or neoprene rubber solution to form film, to shape film into rope, and to cut rope into chips: Moves controls on panel to start rotating drum drier, pumps, and blowers, and to adjust speeds of roper machine and drier. Observes meters and gauges to verify pressures and temperatures of machines. Moves dials on automatic instruments to set and adjust level of rubber solution in drier and flow of steam through drier. Turns valves to regulate flow of cooling water and temperature in cooling drum. Threads film of rubber from drier through guiding rolls and slots of roper and through automatic cutting machine. Keeps production and storage records. Gives directions to workers in cleaning equipment, weighing, stenciling, and storing articles, filling roper chamber with talc, and in packing finished rubber chips into bags or drums.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

559.565-010 CYLINDER FILLER (chemical) alternate titles: charging operator; cylinder loader; drum filler; filler; gas worker; manifold operator; pumper

Tends equipment to fill cylinders and other containers with liquefied or compressed gases: Changes cylinder valves with wrench, or adjusts them to prescribed tension, using torque wrench. Rolls cylinders onto platform scale, or positions cylinders in manifold racks manually or with chain hoist. Connects lines from manifold to cylinders, using wrench. Fills cylinders by any of following methods: (1) Sets pressure gauge to specified reading and listens for buzzer indicating completion of filling. (2) Adjusts valves and observes gauge to fill cylinders to specified pressure. (3) Observes scale indicator to fill cylinders to specified weight. (4) Fills cylinder to excess, rolls cylinder onto scale, and connects exhaust line to release excess gas and attain prescribed gross weight. Sprays or brushes chemical solution onto cylinder valve to test for leaks. Fills out and attaches warning and identification tags or decals, specifying tare and gross weight, cylinder number, type of gas, and date filled, and records data. May test gas for purity, using burette or other testing equipment. May inspect or test empty cylinder [CYLINDER INSPECTOR-AND-TESTER (chemical)]. May evacuate residual gases from cylinders. May test filled cylinders for specified gas pressure by connecting gauge and comparing reading with chart. May tend and maintain generator or compressor in filling process. May be designated according to type of container filled as Ton-Container Filler (chemical); Tube-Trailer Filler (chemical).
GOE: 06.04.12 STRENGTH: H GED: R3 M2 L2 SVP: 3 DLU: 77

559.567-014 WEIGHER AND GRADER (chemical)

Weighs and examines barrels of oleoresin prior to distillation into turpentine and rosin and grades rosin prior to storage: Reads scale to obtain gross weigh of barrel of oleoresin. Examines and feels oleoresin to determine color, cleanliness, water content, and age, and estimates turpentine and rosin content and rosin grade that can be produced. Records estimate and weight of barrel on incoming record sheet. Observes distillation process and directs DISTILLER (chemical) II to stop operation of melter or still whenever temporary shortage of oleoresin occur. Draws rosin sample from still and grades sample according to U.S. Government specifications. Records grade and barrel number on grade record form. Directs or assists DECKHAND (chemical) to push barrels of oleoresin or rosin to and from scales, storage area, and distilling equipment, and to dump barrels of oleoresin into hopper of melter.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

559.582-010 COAGULATION OPERATOR (plastic-synth.) alternate titles: flocculator operator

Controls equipment, such as coagulation tanks, soap conversion tanks, leac tanks, filters, screens, hammer mills, and pneumatic conveyors to coagulat synthetic rubber latex into rubber crumb slurry and to prepare rubber crumb for finishing processes: Turns valves, starts feed pumps, and adjusts flow-controlling and proportioning devices in supply lines to control flow of latex an of solutions to creaming and coagulating tanks. Adjusts recirculating pumps t control overflow of creamed latex to coagulating tank and of coagulated slurr to soap conversion tank to convert soap to fatty acid and extract fatty acid Regulates tank stirring mechanisms to mix contents and controls temperature and acid concentration by automatic recorder-controllers. Observes appearanc of crumbs through sight glasses and regulates operation of filters, shake screens, and hammer mills to remove moisture from and pelletize rubbe crumbs for finishing processes. Records data on coagulation logsheets. Ma prepare brine, acid, and other solutions used.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.582-014 SPECIALTIES OPERATOR (chemical)

Controls equipment to prepare chemical solutions to meet customers' smal lot orders or special specifications, performing any combination of followin tasks: Starts pumps and agitators. Turns valves to admit and discharge chem cals to and from process vessels and to weigh tanks. Observes scales and sto pumps when required weight is attained. Mixes chemicals, according to propo tion tables and prescribed formulas, in reaction vessel, and turns steam valve or sets thermostat to heat vessel to specified temperature. Mixes prepared mate rials with precipitants to produce slurry in dissolving and precipitating tank [DISSOLVER OPERATOR (chemical)].
GOE: 06.02.11 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

559.584-010 ROLL-TENSION TESTER (plastic-synth.) alternate title pull-out operator

Tests rolls of cellophane for conformance with specified winding tensio Slides roll onto shaft of testing frame. Threads film from roll around rewin and tension rollers and turns setscrews to secure cellophane to clip on slidin bar. Turns handwheels to move sliding bar that pulls cellophane predetermine distance from roll and to press tension roller against film to apply specified te sion. Reads rule gauge to measure slack in film between rewind roller and sli ing bar. Cuts cellophane from roll, using knife. Records number and width tested roll, amount of tension applied, and degree of slack. May examine cell phane for defects such as discoloration, wrinkles, scratches, and holes.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

559.584-014 VARNISH INSPECTOR (paint & varnish)

Inspects and tests sample lots of varnish for conformance to specification Pours sample varnish into spray gun reservoir, adjusts nozzle of spray gun, ar sprays wood, paper, tile, or steel panels, using knowledge of spray paintin techniques to obtain uniform coating on panels. Places panels in oven or und heat lamps to dry varnish. Inspects dried varnish for clearness, cracks, cry tallization, and drying qualities. Compares sample color with standard varni colors to determine adherence to color specifications. Dips strip of indicat paper into sample and observes color change of paper to determine acidity varnish. Tests viscosity of varnish by comparing flow of sample varnish to flo of standard varnish in test tubes. Weighs sample to determine weight per ga lon.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

559.585-010 DRY-HOUSE TENDER (ordnance)

Tends equipment that controls moisture content of stored explosive mixtur and their ingredients, used in detonators, primers, and fuses for shells, ca tridges, and bombs according to prescribed standards: Scoops chemicals fro rubber containers into paper- or cloth-lined trays. Places trays on racks steam-heated drying or humidified rooms for specified time to dehydrate moisten chemicals. Observes recording instruments and turns valves to mainta temperature and humidity of rooms within prescribed safety limits. Recor storage time to identify material of specified moisture content for further pro essing. Turn valves to drain explosive material from mixing-room waste co lection tank into vat in which it is cooked to render it harmless for dispos Shovels designated quantity of caustic soda and aluminum chips into vat a closes loading hatch. Turns valves to admit steam into heating coils and se automatic timer for prescribed cooking period. Drains vat of cooked mater

and flushes out sediment. Cleans utensils, floors, and walls, using water hose, to remove accumulations of explosive material in accordance with safety regulations. May screen and blend materials, such as powder, shellac, and ground glass.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

559.585-014 GREASE-AND-TALLOW PUMPER (oils & grease)
Tends pumps to transfer grease and tallow from rendering tank to storage tanks, tankcars, and shipping containers: Turns valves and starts pumps to start flow of material; stops flow when material reaches specified level. Observes measuring gauge reading on storage tank or measures material, using measuring rod, and compares reading with conversion chart to determine poundage pumped. Records poundage stored and shipped.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

559.585-018 TANKROOM TENDER (plastic-synth.) alternate titles: aging room operator; ripening-room hand; spin-tank tender
Tends tanks in which viscose slurry is aged and blended for use in rayon and cellophane production: Pumps slurry from mixing machines to blending and aging tanks, and from tanks to processing area after specified time. Records aging time for each batch in plant log. May tend tanks in which cellulose (viscose raw material) is aged, by moving controls to maintain tank temperature or room temperature at prescribed level, and be designated Ripening-Room Operator (plastic-synth.).
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

559.585-022 VACUUM-PAN OPERATOR III (chemical)
Tends evaporators, rotary vacuum filters, kilns, and coolers that purify and remove moisture from brine to make salt: Turns switches and valves to start equipment, pumps, and flow of steam and brine. Lights fires in kiln, using torch. Observes recorders and gauges and adjusts controls to maintain specified temperature. Records salinity, temperature, and vacuum readings. Reports equipment malfunctioning to maintenance department. Removes residue from evaporators by flushing them with water.
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

559.587-010 ROD-AND-TUBE STRAIGHTENER (plastic-synth.) alternate titles: tube-and-rod straightener
Straightens seasoned thermoplastics rods or tubes by immersing them in hot water and rolling them across flat surface: Turns valve to fill soaking tank with hot water and places rods or tubes into tank to soften them. Removes softened rods or tubes from tank and rolls them across flat table surface to straighten them. Sprays straightened stock with cold water and lays stock on racks. Records number of tubes or rods straightened.
GOE: 06.04.24 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.662-010 ACID MAKER (paper & pulp)
Controls rotary or spray sulfur furnaces and alkali *absorption towers* to make cooking acid for use in digesting woodpulp: Moves controls and observes gauges to regulate combustion chamber, speed of furnace rotation, and volume of liquid sulfur in furnace to maintain specified temperature and acidity required to produce sulfur dioxide gas. Adjusts valves to regulate flow of water and sulfur dioxide gas through alkali absorption towers according to titration tests to produce cooking acid of specified concentration. Starts pumps to pump acid through filters and to storage tanks. Chips slag from furnace, using chipping bar. May make titration tests of produced acid.
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.662-014 WASH OPERATOR (chemical)
Controls system of tanks to wash and reduce acidity of activated carbon sludge, preparatory to drying, for variety of industrial and consumer applications: Turns valves to regulate flow of acid, carbon sludge, and water through thickener and agitator tanks according to tank-level and specific gravity readings supplied by WASH HELPER (chemical). Draws sample of product in beaker and tests for acidity, using pH meter and standard titration test. Compares level of solution in graduated suction tube with conversion chart to determine acidity of sludge. Turns valve to admit caustic solution to neutralizer tank until acidity level meets prescribed standard. Patrols work area to observe level of carbon in thickener tank and wash solutions in overflow troughs to prevent spills, regulating pump speeds as necessary. Gauges tank levels, using calibrated rod. Keeps records of tank levels and test results for shift log.
GOE: 06.02.18 STRENGTH: L GED: R3 M3 L2 SVP: 5 DLU: 77

559.664-010 NITROGLYCERIN DISTRIBUTOR (chemical)
Distributes nitroglycerin to processing departments of dynamite plant and prepares nitroglycerin for shipment: Signals NITROGLYCERIN NEUTRALIZER (chemical) to release specified amounts of nitroglycerin to storage tanks. Tests acidity of nitroglycerin, using litmus paper. Turns valve to release sodium carbonate solution into nitroglycerin to neutralize excess acid that could cause decomposition of material and explosion. Transfers nitroglycerin from storage tank to lead-lined or stainless steel tanks mounted on wheels. Pushes tanks to mix house or other processing department. Washes tanks between loads with sodium carbonate solution and water, using hose and brush. Fills glass or stainless steel vials with nitroglycerin, using filling spout, and packs vials in boxes.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.664-014 PILOT-CONTROL-OPERATOR HELPER (chemical; plastic-synth.) alternate titles: pilot-plant-operator helper
Assists PILOT-CONTROL OPERATOR (chemical; plastic-synth.) in testing methods and chemical processes for product development: Climbs absorption, fractionating, and scrubbing towers to collect samples of solutions or products for laboratory analysis. Performs routine titration, concentration, and gravity tests, using standard test equipment. Adds catalysts, reagents, liquids, or solids to solutions as directed. Reads gauges and charts and records operational data in plant log. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: M GED: R2 M2 L2 SVP: 5 DLU: 77

559.665-010 BONE-PROCESS OPERATOR (chemical)
Tends equipment that grinds and sifts animal bones to form bonemeal and bone flour: Starts grinder, shaker screens, and conveyors. Turns dials on control panel to synchronize feed of bones into grinder and ground bones into shaker screens that separate bonemeal and bone flour. Adjusts length of rocker arm on vibratory feeders and shaker screens to regulate oscillation speed, using wrenches, to maintain uninterrupted production. Observes ammeter on control panel to detect overloading. Monitors equipment to detect clogging and malfunctions.
GOE: 06.04.09 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

559.665-014 DRY-END OPERATOR (plastic-synth.)
Tends dry end of cellophane casting machine that dries and winds continuous sheet of cellophane into rolls: Threads film emerging from washing and coating tanks through heated rollers and starts sheet onto winding core. Turns switch to regulate winding speed and film tension according to specifications. Observes temperature gauge and turns steam valve to maintain specified heat of rollers. Cuts cellophane with knife to stop feed on completed roll and removes roll from winding assembly, using hoist. Signals CASTING-ROOM OPERATOR (plastic-synth.) to request changes in forming speed of cellophane to prevent film breaks or wrinkles during roll changes.
GOE: 06.04.13 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

559.665-018 EXTRACTOR-PLANT OPERATOR (chemical; oils & grease)
Tends extractor tanks, distilling and condensing units, and auxiliary equipment that removes grease from bones for further processing: Loads bones into extractor tanks and bolts tank door, using wrench. Turns valves to circulate naphtha and live steam through extractor tanks to dissolve and remove grease from bones. Observes tank thermometer and color of vapor through viewing glass to determine when all grease has been removed. Turns valves to circulate spent naphtha through distilling and condensing units. Starts steam pump to force grease into treating tank. Notifies other workers to start and stop screw conveyor that removes degreased bones from extractor. Closes top valves and opens bottom valves on extractor tanks to flush naphtha from tank for processing subsequent batches of bones.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.665-022 FORMING-MACHINE OPERATOR (button & notion)
Tends battery of automatic machines that heat and form plastic or nylon filament into spiral, serpentine, or ladder shape for teeth portion of zippers: Mounts reel of filament on machine spindle and threads filament through guides and tension bars into electrically heated device (strip heater). Threads filament between forming dies and through cooling tube to takeup reel. Starts machine and observes filament for loosely formed spiral or tight kinks, indicating variations in temperature, and adjusts rheostat knob to regulate heat. Measures filament for conformance to specified dimensions of height, width, and spacing, using micrometer. Inspects samples of formed filament for height, width, and spacing of teeth, using comparator (shadowgraph), and counts number of teeth in specified length of filament to verify conformance to specifications. Notifies supervisor of machine malfunction.
GOE: 06.02.02 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.665-026 MIXER I (chemical) alternate titles: formulator
Tends mixing kettles to mix and heat chemical ingredients to make cleaning and polishing compounds according to formula: Weighs or measures specified amounts of ingredients on scale or in measuring containers. Pours or shovels ingredients into mixing kettles. Turns valves to regulate gas flame or steam pressure to maintain specified temperature in kettles. Starts agitator to mix ingredients for specified time. Turns valve to drain mixed ingredients into drums, filler machine, or storage tanks. Cleans mixers, kettles, scales, and work area, using solvent and rags. May mix ingredients in portable mixer. May be designated according to kind of cleaning or polishing product made as Shoe-Dressing Maker (chemical).
GOE: 06.04.11 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

559.665-030 PRESS OPERATOR I (chemical) alternate titles: carbon-dioxide operator
Tends equipment that converts liquid carbon dioxide into dry ice: Turns valves to transfer liquid carbon dioxide to batch tank for weighing, and to expansion chamber where snow is formed by sudden release of pressure. Pushes lever of press to lower hydraulic ram that compresses snow into cakes. Pushes cakes onto conveyor that carries them under power saws that cut cakes to specified size and transfers them onto scale. Weighs cakes on scale, records weight, and covers dry ice with paper. Lifts ice into insulated box. Tends booster pumps to fill cylinders with liquid carbon dioxide under pressure. May tend automated system that converts liquid carbon dioxide into dry ice.
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

559.665-034 SPLASH-LINE OPERATOR (fabrication, nec) alternate titles: marbleizing-machine tender; mottle line operator
Tends equipment that mixes, rolls, cuts, and grinds raw materials into chips used to marbleize vinyl and asphalt asbestos floor tile: Weighs out specified

quantities of materials, such as limestone, resins, and asbestos fibers, and dumps them into hopper of mixer. Starts mixer and adjusts temperature controls to attain specified consistency of material. Dumps materials from mixers onto conveyor that conveys material into calenders that roll materials to prescribed thickness. Presses pedal to activate knife that automatically cuts material into slabs. Loads slabs onto conveyor that moves them through drying oven and dumps them into grinders to form chips.
GOE: 06.04.19 STRENGTH: V GED: R2 M2 L2 SVP: 4 DLU: 77

559.665-038 TANK-FARM ATTENDANT (chemical) alternate titles: transfer-and-pumphouse operator

Tends series of spheres or tanks to store and distribute liquid chemicals for use in production of industrial or consumer products, such as phosphoric acid, synthetic rubber, resins, and solvents: Observes flowmeters and pressure gauges, turns valves, and starts pumps to transfer fluid chemicals to or from specified tanks and to processing areas. Gauges quantity of chemicals in tanks, using calibrated steel tape or rod and conversion tables [GAUGER (petrol. & gas; petrol. refin.; pipe lines)]. Maintains records of materials received and distributed, gauge readings, pumping time, and storage dates. Patrols tank farm area to inspect pumps, motors, valves, piping, and electrical ground-wire connections. Reports leaks, temperature and pressure abnormalities, and other potential hazards. May regulate admission of products through preliminary processing units, such as water-treating and refrigerating units, heat exchangers, and purification and filtration equipment. May draw samples of chemicals for laboratory analysis or perform concentration, acidity, or composition tests, using standard test procedure and equipment. May circulate fluids through weigh tanks to facilitate inventory control or supply processing areas with preweighed ingredients.
GOE: 06.04.11 STRENGTH: M GED: R3 M3 L2 SVP: 4 DLU: 77

559.665-042 WASH HELPER (chemical)

Tends equipment that washes and reduces acidity of activated carbon, preparatory to drying: Turns valves, couples hoses, and starts pumps to circulate carbon sludge through washing and blending tanks in specified timing and sequence. Admits prescribed amount of caustic soda into mixing tank or barrel to produce neutralizing solution of prescribed concentration. Starts agitators in blending tanks and opens valves to admit water, caustic solution, and steam to system as directed by WASH OPERATOR (chemical). Takes samples of carbon sludge and wash solution to determine acidity, using titration test and conversion chart. Determines specific gravity of neutralized solution, using hydrometer, beaker, and siphon, and reports reading to system operator to facilitate process control. Measures depth of carbon sludge in tank, using calibrated rod or suction tube. Pumps washed and neutralized carbon to driers when test results indicate washing is completed. Records tank-level and specific gravity readings in shift log. Flushes tanks and lines with water hose, dismantling piping as necessary to remove caked deposits, using wrenches.
GOE: 06.04.19 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.666-010 TOWER ATTENDANT (paper & pulp) alternate titles: limerock tower loader

Charges tower with limerock used in preparation of acid for cooking wood chips: Breaks limerock with maul and washes dirt from pieces, using hose. Fills handtrucks with limerock and pushes truck to tower. Starts elevator or bucket conveyor to transport limerock to top of tower and fill tower to specified depth. Closes tower filling hatch and fastens it with clamps. Scrapes slag from tower grate and rakes slag from tower floor, using scraper and rake. May operate scoop truck to transport limerock to tower.
GOE: 06.04.14 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.667-010 TABLET TESTER (pharmaceut.)

Tests hardness of medicinal tablets to ensure conformity with production specifications, using balance scale and hardness tester: Places sample tablet on scale pan, using tweezers, and records weight. Places tablet in hardness tester, turns screw to raise tablet until it touches pressure rod, and depresses pneumatic foot pedal to squeeze tablet until breakage occurs. Examines and fingers tablets to detect chips and tackiness. Notifies COMPRESSOR (elec. equip.; pharmaceut.) when tablets do not meet weight or hardness specifications. May test tablets, using hand-operated hardness tester. May weigh entire batch of tablets to compare with total weight of ingredients used.
GOE: 06.03.02 STRENGTH: S GED: R2 M2 L2 SVP: 3 DLU: 77

559.667-014 LABORER, GENERAL (plastic-synth.)

Performs any combination of following tasks involved in manufacturing plastics materials, synthetic resins, and synthetic rubber: Transports materials to workers and machines, using hoist or handtruck. Inserts metal core in rolls of plastics film. Tightens clamps on supply racks, using wrenches. Cleans machinery and work area, using vacuum cleaner, brushes, and cleaning solvents. Measures, weighs, and dumps ingredients into mills, kettles, or hoppers. Replaces spools or coils of materials on supply racks or reels. Delivers samples of materials to testing laboratory. Records weights, types, and amounts of materials used, stored, or shipped.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 78

559.682-010 CAPSULE-FILLING-MACHINE OPERATOR (pharmaceut.)

Operates capsulating machine to fill gelatin capsules with medicinal preparations: Scoops empty capsules into loading hopper and scoops medicinal preparation into filling hopper of capsulating machine. Fills capsule rings with empty capsules, uncouples rings, and fills lower half of capsule with powdered or pelletized medicine. Recouples capsule rings and inserts rings into closing and ejecting forks. Depresses pedal to close filled capsules and eject them into receiving container. Polishes capsules, using polishing cloth, and inspects capsules for breakage and defective filling. Weighs specified number of capsules and compares weight with weight specification sheet. May operate capsule branding machine to print establishment name on capsule.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.682-014 CASTING-AND-CURING OPERATOR (chemical)

Controls equipment to fill rocket motor cases with rocket fuel and to cure rocket fuel: Attaches handling ring or sling to motor case, using handtools or portable power tools. Positions motor cases in casting rig (special jig), using hoist, and tightens holding clamp with wrench. Inserts mandrel (core) inside motor case, using hoist, and tightens clamps on casting rig to hold it in position. Conveys and positions casting can over rig, using hoist, and connects hose to rig. Moves console controls to pump fuel from casting can to motor case. Observes level of fuel in case through closed-circuit television and moves controls to regulate volume of fuel charge. Stops pump and presses hydraulic control to move mandrel into final position in motor case. Lifts motor case onto overhead conveyor, using hoist, and starts conveyor to move motor case into curing oven. Observes recording-instrument charts on control panel of curing oven to verify specified temperatures and curing times.
GOE: 06.02.11 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

559.682-018 CHEMICAL COMPOUNDER (chemical)

Controls equipment that processes coal tar hydrocarbons into intermediate compounds for use in manufacture of dyestuffs and pharmaceutical products: Measures coal tar derivatives, using balance scales and volume indicators. Shovels or pumps derivatives into specified containers. Observes recording instruments, and adjusts steam, water, and vacuum valves to regulate temperature and pressure during chemical reactions that produce specified intermediates. Tests acidity of intermediates, using pH indicators. Tests solubility of intermediates in liquids, such as water, alcohol, and chloroform. Adds specified chemicals to intermediates to ensure that they meet requirements. Dumps ice into intermediates to reduce temperature. Pumps intermediates through filter to remove liquid residue. Heats intermediates and circulates vapors through condenser lines to isolate components of intermediates. May be designated according to equipment tended as Kettle Operator (chemical) II; Tub Operator (chemical); process involved as Bromination Equipment Operator (chemical); Sulfonation Equipment Operator (chemical); or material produced as Optical-Brightener Maker (chemical).
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.682-022 FILM-CASTING OPERATOR (plastic-synth.) alternate titles: caster

Controls equipment, such as spray line, oven, conveyor, and winding reel to produce transparent plastic wrapping material from prepared chemical solutions: Opens valves to spray solution from bank of spray nozzles onto moving conveyor. Observes gauges and adjusts controls to regulate oven temperature, spray rate of solution, and conveyor speed to produce sheeting of specified thickness and quality. Examines sheet material and inserts marker in spooled material to indicate defective areas. May control operations from remote-controlled panelboard. May send sample piece of material to laboratory for analysis. May examine thickness and clarity of material, using micrometer and illuminated viewing panel. May operate solvent recovery unit.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

559.682-026 FLUSHER (chemical)

Controls equipment to displace water from damp pigments by introducing oil or other liquid into pigment: Shovels batch of damp pigment into tub and starts agitator. Turns valve to admit steam into jacket of tub to heat batch to specified temperature. Adds required quantity of liquid vehicle to displace water in pigment. Tilts tub to drain displaced water from top of batch. Clamps lid on tub and opens vacuum valve to draw remaining water from batch. Collects samples of batch for laboratory analysis. Adds type and quantities of oils and extenders specified by laboratory to bring body, strength, and shade of batch within acceptable limits. Mixes batch for specified time. Drains batch into containers and clamps on lid.
GOE: 06.04.12 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

559.682-030 LACQUER MAKER (paint & varnish) alternate titles: lacquer mixer

Operates jar-type grinding mill and mixing machine to produce lacquers and synthetic paints according to formulas and work order specifications: Starts jar mill and portable mixer to grind and mix ingredients. Places ingredients, such as gums, pigments, and thinners in mill. Dumps coloring and lacquer ingredients according to specifications into portable mixing kettle and places kettle under mixer. Takes sample from batch and strains it into can. Uses spray gun to spray test panel. Heats prepared mixture with steam coil, causing wax to rise to top of solution, and then settle to bottom to be drawn off into clean tank. Adds required color for tinting batch to meet plant specifications [TINTER (paint & varnish)].
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

559.682-034 LATEX-RIBBON-MACHINE OPERATOR (rubber goods)

Operates machine to produce and cure latex ribbon and thread used for such items as elastic and garters: Moves drums of liquid latex and coagulant to dip trays, using hoist. Opens petcock on drums and adjusts flow to regulate level

of coagulant in trays. Positions number of dip belts, according to gauge of finished latex ribbon or thread, over belt spindles. Starts equipment to activate dip belts and conveyor system. Observes belts as they float on top of latex in tray and through coagulant to verify cohesion of latex to dip belts. Observes separation of coagulated ribbon or thread from bottom of dip belt to conveyor carrying ribbon or thread through rinsing and drying areas. Inspects ribbon and thread for such defects as holes and dried coagulant. Threads end of ribbon or thread through guides leading to curing drum. Cuts, weighs, and examines samples, to verify adherence to specifications, using scissors, scale, and gauge. Inspects and sharpens circular knives with stone. When producing thread, may be designated Latex-Thread-Machine Operator (rubber goods); Thread-Machine Operator (rubber goods).
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

559.682-038 RIPENING-ROOM ATTENDANT (plastic-synth.)
Controls equipment to filter, transfer, and remove bubbles from viscose fluid used in manufacturing rayon or cellophane: Turns valves to transfer viscose from mixing station to filter presses that remove impurities and to vacuum tanks that remove air bubbles. Observes gauges and adjusts controls to maintain specified temperature, pressure, and feed rate in equipment and pipes. May tend tanks to age viscose for specified time before transfer to casting (forming) units [TANKROOM TENDER (plastic-synth.)]. May record aging time, viscose output, and gauge readings. May be designated Viscose-Cellar Attendant (plastic-synth.) in plants producing rayon by viscose process.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.682-042 RUBBER-MILL OPERATOR (plastic-synth.)
Operates extruders and calender mill to remove moisture from butyl rubber crumbs: Presses buttons on control panel to start conveyors that feed rubber crumbs from drier through extruder and into hot mill. Opens breech-lock head on extruder, using wrenches. Removes foreign matter from equipment, using hot hoe and wooden tamper. Turns handwheel to adjust space between rollers on hot mill to remove moisture and to regulate thickness of product on rollers. Observes color and surface characteristics of rubber to determine degree of dryness. Turns valves on steam lines to maintain temperatures. Turns handwheels to adjust mill knives. Cuts samples of product for laboratory tests and cleans undried rubber from rollers for remilling, using knife. Inspects machinery for lubrication and to detect mechanical malfunction.
GOE: 06.02.13 STRENGTH: L GED: R3 M1 L2 SVP: 5 DLU: 77

559.682-046 SODA-ROOM OPERATOR (beverage)
Controls equipment to make cleaning solution used in beer bottle-washing machines: Dumps specified bags of chemicals into mixing tank and adds measured amount of water. Starts pump that transfers chemical solution to tank containing specified amount of concentrated soda. Observes gauges and turns steam valve to heat solution to specified temperature. Pumps used soda from washing machines into separators and settling and storage tanks to remove solid matter, clarify solution, and store solution. Opens hoppers on settling tanks to dump solid refuse into trucks. Connects hoses and starts pumps to transfer concentrated soda from tank car to storage tanks. Washes separator, settling tanks, and floor, using hose.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.682-050 SPONGE-PRESS OPERATOR (rubber goods)
Operates combination calendering mill and vulcanizing conveyor that rolls out and cures, in continuous process, sponge rubber sheeting for use gaskets, underlay for carpeting, and insulation for footwear: Turns handwheels and capstan screws to set distance between calender rolls and between vulcanizing plates and conveyor, verifying setting with feeler gauges. Operates calender to produce uncured sponge rubber sheeting [CALENDER OPERATOR (rubber goods; rubber tire)]. Turns rheostat for each vulcanizing plate to designated temperature setting and observes heat indicators. Starts conveyor, when plates reach specified heat, to vulcanize calendered sheeting beneath them. Replaces worn canvas conveyor belts between calendering and vulcanizing units, using portable vulcanizing machine to bond ends. Adjusts tension bars that tighten belt, using wrenches. Mounts roll of underlay backing cloth into cradles, using electric chain hoist. Threads backing cloth (netting) through cement trough and series of rollers that press it onto sponge rubber sheeting, and through drying oven. Adjusts width between calender rolls to increase or decrease thickness of sheeting and adjusts temperatures of vulcanizing plates when there are deviations from specifications in thickness or curing. May operate vulcanizing conveyor without warming mill, calender, or vulcanizing plates that draws, by vacuum pressure, uncured sponge rubber between links of wire mesh that expands and vulcanizes rubber as it passes through heated oven to produce waffle-imprinted underlay on precalendered stocks and be known as Rug-Underlay-Machine Operator (rubber goods).
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.682-054 STERILE-PRODUCTS PROCESSOR (pharmaceut.) alternate titles: compounder, sterile products
Operates water still, mixer, *clarifier*, and filtering unit to process liquid and powder ingredients into sterile medications: Turns valves to admit deionized water and steam to still and circulate water through condenser for distillation. Pours metered or measured amount of distilled water into container, weighs out or dumps preweighed ingredients into water and lowers mixing head into solution to dissolve and mix ingredients. Turns dial on pH meter to standard acidity reading, immerses electrodes in beaker of buffer solution, and adds acid or alkali, as specified, to achieve prescribed acidity. Pours mixture into clarifier unit to remove insoluble material. Immerses bacteriological filtering candle in clarified solution, connects tubing between candle and collecting vessel, and starts vacuum pump to draw solution through candle pores to remove bacteria and spores and produce sterile product. May set up ampoule- or vial-filling machine. May operate equipment to produce sterile, deionized water used in sterile medications. May sterilize equipment, using autoclave and disinfectant solution.
GOE: 06.02.18 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

559.682-058 STRETCH-MACHINE OPERATOR (plastic prod.)
Operates machine to stretch plastic sheets to specified dimensions: Positions sheet in machine and clamps hydraulic rams to edges of sheet. Sets temperature control and starts blowers to heat sheet. Adjusts stops on hydraulic rams (pullers) and starts machine to stretch sheet to specified dimensions. Removes sheet and places it on table or rack to cool. May cut stretched sheet into pieces of specified size, using bandsaw. May inspect stretched sheet against grid board to locate distortion-free areas.
GOE: 06.02.02 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

559.682-062 STRONG-NITRIC OPERATOR (chemical) alternate titles: nitric-acid-concentrator operator; tc operator
Controls equipment to increase strength of nitric acid, used in making TNT and nitroglycerin: Regulates flow of sulfuric acid and weak nitric acid into mixing tank and controls flow of steam, water, air, and mixed acids through dehydrating tower, absorption tower, bleaching tower, still, and condenser to produce concentrated nitric acid meeting plant standard. Monitors thermometers and pressure gauges and adjusts valves to maintain specified temperature and pressure in each unit. Takes samples of product for laboratory analysis or tests acid strength, using pH meter. Records instrument readings in shift log.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.682-066 UTILITY OPERATOR I (chemical)
Operates or controls stills, compressors, reactors, and related chemical process equipment during rest periods, lunch hour, or emergency, performing duties of regular operators as directed by operators or supervisory personnel. When not relieving equipment operator, performs tasks such as assisting operator in turning valves to control flow of materials, setting equipment controls at specified readings, gauging tank levels, and recharging equipment with fresh catalytic agents. May be designated according to equipment operated or worker relieved as Benzene-Still Utility Operator (chemical); Butadiene-Converter-Utility Operator (chemical); Dehydrogenation-Converter Utility Operator (chemical); Ethylbenzene-Compressor Utility Operator (chemical); Styrene-Continuous-Still Utility Operator (chemical).
GOE: 06.02.11 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

559.682-070 SCREEN-MACHINE OPERATOR (tex. prod., nec)
Operates screen machine that folds and bonds edges of vinyl sheets to reinforcing strips and punches holes in strips to form shower curtains: Selects roll of vinyl specified on work order, inserts metal cylinder in roll, positions roll in holding brackets of machine, and turns knobs to secure cylinder. Fills cylinder with air to prevent slippage of roll during machine operation, using air-hose. Cuts lead end of vinyl with scissors to straighten end and attaches end to material in machine, using tape. Adjusts guides that fold edges of vinyl and solvent release mechanism that seals folded edges, using handtools. Turns knobs to set heat level of rollers that press and seal folded edges of vinyl. Inserts roll of vinyl reinforcing strip in holder above press of machine, and pushes end of strip onto chain that automatically positions strip for bonding to and reinforcing lead end of vinyl sheet. Pushes button to start machine and measures vinyl in machine to verify width specified on work order, using tape measure. Flips switches to activate feed chains that automatically pull vinyl and reinforcing strip into position under press, and to lower press that cuts, punches holes in, and presses and bonds strips against vinyl to form shower curtains. Observes movement of vinyl through machine and adjusts machine periodically to eliminate detected defects.
GOE: 06.02.13 STRENGTH: H GED: R3 M1 L2 SVP: 5 DLU: 86

559.684-010 PACK-ROOM OPERATOR (plastic-synth.)
Fills spinnerette *packs* (metal cups) with measured amount of treated sand to filter impurities from molten nylon before extrusion into filaments: Examines holes in bottom of pack, using microscope, to detect damaged or clogged openings. Weighs out prescribed amounts and grades of treated sand and pours sand into pack, leveling sand with crescent-shaped tool. Repeats filling and leveling process until specified number of layers have been built up, according to type of nylon to be spun. Disassembles used packs, pours out sand, and washes pack in soapy water to remove burned sand adhering to cup after extrusion of molten nylon.
GOE: 06.04.30 STRENGTH: H GED: R3 M2 L1 SVP: 4 DLU: 77

559.684-018 RUBBER-MOLD MAKER (jewelry-silver.) alternate titles: mold maker
Forms rubber wax injection molds by vulcanizing pieces of rubber around metal sample: Places metal sample into frame and packs raw rubber around sample. Clamps sample, frame, and rubber into vulcanizing machine. Turns on machine, waits specified time, and removes mold from machine. Splits mold into two pieces to remove metal sample, using knife or scalpel. Inspects mold for defects. May form investment molds around wax patterns. May operate centrifugal casting machine. May burn grooves or crevices in mold to correct defects, using soldering gun.

GOE: 06.04.32 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

559.684-022 TANK CLEANER (paint & varnish) alternate titles: chipper
Cleans tanks, vats, kettles, and chutes, used in production of paint products: Disconnects pipelines and locks safety devices on agitator switch. Enters tanks and examines condition of interior to determine cleaning method. Connects air-compresser hoses to portable pneumatic chisel and forced-air ventilating equipment. Starts portable electric pump to draw residual liquid from tank. Chips and scrapes caked material from walls, ceiling, agitator, and floor surfaces, using pneumatic chisel or hand scrapers. Shovels scrapings into container and removes container from tank, using hoist. Dumps scrapings into disposal drum and carts drum to refuse area. Scrubs tank surfaces, using brush, water, and solvent. May presoak tank with caustic solution. May haul kettles and chutes to burning area and burn off inflammable residue in vessels.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

559.684-026 UTILITY WORKER, MOLDING (plastic prod.)
Performs any combination of following and related tasks in molding department of plastics fabricating establishment: Examines plastic products for defects, such as scratches, *flash*, and discoloration, and discards defective items into reject box. Packs finished products into cartons and affixes content labels. Conveys supplies from storage to work stations, using handtruck. Opens collapsed cartons, folds and seals carton bottoms, using moistened gummed tape, and inserts nesting into cartons. Unloads plastic mixture from machine hoppers into barrels upon completion of job order, affixes identification labels on barrels, and conveys barrels to mixing department. Dumps cleaning solution into hopper and actuates molding machine to purge internal sections of unused plastic mixture. Dismantles hopper and drying unit of machine, using handtools, and cleans internal sections, using rags, cleaning solution, and airhose. Sweeps and mops production floor.
GOE: 06.04.24 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 86

559.684-030 HAT-FINISHING-MATERIALS PREPARER (hat & cap)
Mixes and blends finishing grease and coloring powders used in manufacture of felt hats: Pours specified amounts of ingredients, such as oil and lanolin into blending pot, following formulas and using measuring containers. Places pot on heated range and stirs ingredients to blend mixture, using paddle. Places rolls of greasing or pouncing (smoothing) cloth in processing pan and pours mixture over rolls. Turns knobs to activate oven and places processing pans in oven to heat rolls of cloth in mixture for specified period. Removes pans from oven at end of processing, affixes batch labels to rolls, and carries rolls to specified storage area. Refines dye powders, using powder-refining tumbler machine, and weighs and blends refined powders according to formulas and work order specifications, using scale and automatic mixing machine. Labels and stores blended powders, according to color, in specified storage areas.
GOE: 06.04.34 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 86

559.684-034 UTILITY WORKER, PRODUCTION (pharmaceut.) alternate titles: utility worker, virus
Performs any combination of following duties in production of vaccines or toxoids: Adds chemical solutions, disease virus, or bacteria to and removes culture fluids from glass vessels, using pump. Connects pumping equipment to storage, filtration, fermentation, and refrigeration containers to transfer and refrigerate chemical ingredients or to flush containers. Conveys chemical ingredients, disease bacteria, and disease viruses in drums, containers, jars, or vials to and from storage or refrigeration rooms, using handtruck. Carries samples of chemical broth, vaccine, or toxoid to quality control unit. Tends sterilizers, oven, and autoclave that sterilize glassware, instruments, and portable equipment. Washes designated equipment by hand, using brushes, rags, and detergent. Thaws frozen ingredients used in developing vaccines or toxoids, using thawing equipment.
GOE: 06.04.19 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 86

559.685-010 ACID PURIFIER (chemical)
Tends equipment that filters acid liquor from slurry and dehydrates residual materials for further processing: Opens feed valves and starts rotary drum that filters liquor from slurry. Turns valves to transfer residue to dehydration unit. Adjusts controls to regulate temperature, pressure, and speed of material flow as specified to dry residue. Collects samples of acid liquor and residual materials for laboratory analysis. May be designated according to material processed as Phthalic-Acid Purifier (chemical).
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

559.685-014 ALUMINUM-HYDROXIDE-PROCESS OPERATOR (chemical; pharmaceut.)
Tends steam-jacketed kettles, mixing tanks, filter press, string filter, and related equipment to process ammonia solution and aluminum sulfate into aluminum hydroxide: Meters water into steam-jacketed kettle and sets thermostat at specified temperature. Dumps preweighed bags of aluminum sulfate into kettle, and starts agitator to dissolve ingredient. Meters specified amounts of hot water and ammonia into mixing tank and starts agitator. Pumps aluminum sulfate solution through filter press into heated agitator tank to remove insoluble materials. Pumps ammonia solution to tank with aluminum sulfate solution. Ladles sample of mixture, adds test solution, and observes color reaction to determine degree of precipitation. Adds specified ingredients to mixing tank to complete precipitation, according to results of test. Pumps slurry through string filter to separate aluminum hydroxide from mixture. May replace filtering media and repair equipment, using handtools.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-018 AMPOULE FILLER (pharmaceut.) alternate titles: ampoule filler and sealer
Tends machine that fills ampoules with metered doses of liquid drug products: Starts machine and dumps empty ampoules into hopper or places them on rotating table of machine that automatically positions them for filling. Seals ampoules [AMPOULE SEALER (pharmaceut.)]. May regulate gas flame in ampoule-sealing unit. May inspect [AMPOULE EXAMINER (pharmaceut.)], count, and pack ampoules in cartons for shipment. May place sealed ampoules in wire basket and immerse in dye bath for leak test. May tend machine that steam-washes ampoules preparatory to filling [AMPOULE-WASHING-MACHINE OPERATOR (pharmaceut.)].
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-022 AMPOULE-WASHING-MACHINE OPERATOR (pharmaceut.) alternate titles: washing-machine operator
Tends machine that steam-washes ampoules, preparatory to filling: Places ampoules on spokes of rotary table of washing machine. Depresses pedal to move ampoules through steam bath. Removes washed ampoules and places them in holes of perforated tray. Discards chipped or cracked ampoules. May load ampoules into drying ovens and remove after specified time.
GOE: 06.04.39 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-026 BRINE-WELL OPERATOR (chemical) alternate titles: pump operator, brine well
Tends pumps to maintain brine wells at specified levels to ensure adequate salt supply for chemical processes: Turns valves and monitors gauges and water-pressure recorders to maintain level and brine strength of wells within prescribed limits, and to reverse flow of flush wells as directed. Determines specific gravity of salt water in wells, using hydrometer. Determines iodine content of brine, using standard titration test. Monitors automatic pump operation and inspects water supply system to detect broken or frozen lines, stoppages, and leaks. Records brine strength and pressure in system for operating log.
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-030 BRIQUETTER OPERATOR (chemical)
Tends machine that automatically forms ore mixture or chemical compounds into briquettes: Shovels mix into feed hopper and pokes out feed chutes, using rod, to prevent jamming of material as it flows to briquetting rollers and to rotary drier. Turns valves to maintain vacuum pressure in drier within specified limits. Pushes down sealing ring to prevent loss of vacuum and transfers briquettes to drums for shipment or storage. Weighs drums, using platform scale, to facilitate compilation of shipping data. Monitors potentiometer on drier and reports unusual fluctuations to maintenance or supervisory personnel. Examines drier feedlines for condition, to detect potential air leaks and loss of vacuum.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

559.685-034 CD-STORAGE-AND-MATERIALS MAKE-UP HELPER (chemical)
Tends equipment to prepare basic chemical solutions used in production of synthetic rubber: Opens valves and starts pumps to admit chlorobutadiene into weigh tank. Adds specified ingredients into tank, according to formula. Starts agitator in tank to mix contents. Turns valve to control flow of steam into tank jacket to maintain specified temperature of solution. Mixes persulfate and water in tank according to formula. Pumps prepared solution to processing areas. Records data, such as materials prepared and chemicals used. Pumps brine or nitrogen through chlorobutadiene stored in tanks to prevent spontaneous polymerization. Disassembles and cleans scrubbers, using handtools and steam hose.
GOE: 06.04.11 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

559.685-038 COMPRESSOR OPERATOR II (chemical) alternate titles: block-press operator
Tends machine that compresses loose salt into blocks for use as cattle feed supplement: Opens gate to transfer premixed salt from bin to measuring hopper. Starts press that automatically admits measured amount of salt into compression chamber, compresses salt into blocks, and ejects blocks onto chute. Lifts blocks from chute and stacks them on pallet. Cleans machine. May fortify salt by adding and mixing specified amounts of potassium iodide or other fortifiers to salt before it is compressed into blocks.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-042 CRYSTALLIZER OPERATOR I (chemical)
Tends crystallizer to process chemical solution into crystalline form: Pumps specified amounts of materials and solvent or dumps drums of solutions into crystallizer. Starts agitator and pumps coolants into coils of crystallizer. Reads thermometer, observes product, and turns coolant valve to regulate temperature and control rate of crystallization according to specifications. May heat ingredients in crystallizer to prevent premature crystallization. May start centrifuge to separate crystallized substances from solvent [CENTRIFUGAL-DRIER OPERATOR (chemical)].
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-046 DOPE-DRY-HOUSE OPERATOR (chemical) alternate titles: dope-house operator helper; dry-house operator
Tends machines that dry, grind, and screen materials, such as sodium nitrate, apricot pits, sulfur, and clay for use in making dynamite: Shovels or dumps materials into drier hopper and adjusts temperature of steam-heated drier to

specified reading. Starts conveyors and elevators that convey materials through drier and grinder. Starts grinder and sifting screens that grind and screen materials and deposit them in bins. May drive scoop tractor to fill drier hopper. May test moisture content of ingredients, using carbide-filled jar and gauge that registers gas produced. May weigh out dried ingredients according to formula, to prepare batches for mixing with nitroglycerin. May be designated according to ingredient treated as Soda-Dry-House Operator (chemical).
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-050 DRIER-AND-PULVERIZER TENDER (chemical)
Tends mill that dries and pulverizes pasty chemical materials: Starts mill, turns valves, and observes gauges to regulate temperature and suction as specified. Hoists containers of materials to be milled onto loading platform, using chain fall, and dumps specified quantity of materials into mill. Regulates flow of hot air through mill, according to size of milled batch, and controls speed of suction pump that removes pulverized product after milling and drying.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-054 DUSTING-AND-BRUSHING-MACHINE OPERATOR (rubber goods)
Tends machines that automatically dust uncured sponge rubber sheeting with talc powder to prevent rolled surfaces sticking together or remove excess powder from sheeting: Shovels powder into hopper to load machine for dusting. Mounts roll of sheeting in cradle and threads end between fleece rollers or brushing unit of machine to dust surface with talc or remove excess talc, and wind sheeting onto empty roll. Starts machine, observes feeding of material, and keeps hopper filled with talc, when dusting. Blows dust from operating parts of machine, using airhose.
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-058 EFFERVESCENT-SALTS COMPOUNDER (pharmaceut.) alternate titles: process operator
Tends mixing machine, evaporating pans, grinding mills, and drying oven that process powdered ingredients into granulated effervescent salts for use in drug preparations: Dumps prescribed quantity of citric acid crystals into mill and starts machine to grind crystals. Starts mixer and adds ground crystals and specified amount of powdered ingredients to blend for designated time. Sets thermostat to regulate temperature of steam-jacketed evaporator pans, and dumps mixture into pans to heat for specified period and remove moisture. Inserts screen in mill and dumps contents of evaporator pans into machine to granulate to uniform size. Scoops granules into trays. Places trays in drying oven for predetermined time. Dumps or scoops dried granules into hopper or chute for transfer to storage or packaging area. May screen granules to remove particles smaller than specified size, using sieve.
GOE: 06.04.11 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-062 ELECTRODE-CLEANING-MACHINE OPERATOR (elec. equip.)
Tends electrode cleaning machine that scrapes excess carbon from baked or graphitized electrodes: Pushes machine, mounted on rails, to area where electrodes are stacked horizontally on racks and aligns machine with guide bars extending from rack. Blocks wheels to prevent machine from rolling during cleaning process. Moves levers that lower stop bar on machine and allow electrode to roll from rack onto rollers of machine. Starts machine to rotate electrode on rollers and moves lever to lower abrasive belt onto electrode to scrape away excess carbon. Stops machine when scraping is complete and moves lever that raises abrasive belt and ejects cleaned electrode onto rack adjacent to machine. Inspects cleaned electrode to ensure that excess carbon is removed.
GOE: 06.04.09 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-066 FABRIC NORMALIZER (rubber goods) alternate titles: normalizing-equipment tender
Tends equipment that shrinks rubberized fabric sheeting or tubing to increase strength of material: Positions reel of rubberized stock in letoff rack, by hand or using hoist. Adjusts stock guides and tension rollers on machine, using handtools, to accommodate stock. Dumps powdered soapstone in hopper of equipment to dust stock. Moves controls to regulate temperature of water in dip tank and speed of equipment. Threads rubberized fabric stock through machine. Starts equipment that moves stock through water bath, drying compartment, under soapstone dispenser, and onto windup reel.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

559.685-070 FERMENTER OPERATOR (pharmaceut.)
Tends fermenting tanks and auxiliary equipment to produce active constituent of antibiotic drug products: Starts agitator fermenting and mixing tanks and adds prescribed quantities of ingredients, such as salt, sugar, and yeast. Turns valves and starts pumps to transfer mixture to fermenting tank and maintain specified temperature in tanks for prescribed time. Opens valves to admit water, liquid seed antibiotic, and foam-preventing oil, according to critical plant specifications. Unbolts lid of fermenter tank and measures level of solution, using dipstick. Turns valves to transfer mixture to crystallization tank for further processing.
GOE: 06.04.11 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-074 FLAKER OPERATOR (chemical; smelt. & refin.) alternate titles: drier-and-evaporator operator; finishing-pan operator; flaking-machine operator; pan operator
Tends drum-flaking machine that solidifies and converts chemical compounds into flakes preparatory to shipment or further processing: Pumps molten materials or concentrated solutions into feed pan of flaking machine. Moves rheostat and turns valves to regulate speed of revolving flaking drum and flow of coolant to control solidification and thickness of flakes scraped from drum by stationary blade, according to procedure. Scoops samples of flakes into container for laboratory moisture analysis. May dump flakes into bags or drums, weigh, and secure bags with stitching device, or seal drums. May tend auxiliary equipment, such as grinding mills, shaker screens, and loading conveyors. May be designated according to material flaked as Pitch Flaker (chemical); Potash Flaker (chemical); Soda Flaker (chemical).
GOE: 06.04.11 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

559.685-078 FOAM-MACHINE OPERATOR (plastic prod.; plastic-synth.)
Tends machine that sprays thermoplastic resins onto conveyor belt to form plastic foam: Pours catalysts and resins into machine hoppers and starts belt conveyor and resin pumps. Turns valves to start spray and synchronize spray with conveyor speed. Cuts solidified foam block to specified length, using handsaw. May cut foam block to specified thickness, using horizontal bandsaw [SAWYER (plastic prod.; plastic-synth.)].
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-082 FORMULA WEIGHER (pen & pencil)
Tends mills and mixing machines to prepare ink for typewriter ribbons and oil-wax coating for carbon paper, according to prescribed formulas: Weighs and measures ingredients, following written instructions. Pours ingredients into specified mixing machine, such as mixing mill, ball mill, or agitator. Starts and stops machines. Observes temperature indicators and turns valves to maintain specified heat in mills. Cleans machines and utensils, using solvent and cloth.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-086 FRAME STRIPPER (soap & rel.)
Pushes empty soap frames (open metal tanks with removable sides) under crutcher machine to fill frames with liquid soap, and tends machine that cuts soap into slabs: Opens slide in crutcher to allow soap to pour into and fill frame. Pushes filled frame to hardening area to allow soap to harden for specified time. Moves hardened frame to slabbing machine, using handtruck. Unscrews bolts on frame to remove sides, or connects hoist to frame to lift sides. Pushes soap cake into slabbing machine and presses lever to activate cutting wires that cut soap cakes into slabs. Removes slabs from machine.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-090 FREEZING-MACHINE OPERATOR (pharmaceut.) alternate titles: shell-freezing-machine operator
Tends machine that freezes blood plasma preparatory to hydration or storage: Starts machine that circulates solution of dry ice and alcohol over rollers to chill them. Moves blood plasma from walk-in freezer to freezing machine, using handtruck. Places bottles of blood plasma onto rotating rollers submerged in cold alcohol in machine. Taps revolving bottles with metal wand to accelerate and ensure uniform freezing of plasma, increasing speed of tapping on bottles when crystallization does not occur uniformly. Places bottles of plasma that do not freeze uniformly into reject container and frozen plasma on trays for further processing. Reads thermometer to ascertain that temperature of solution remains constant, according to specifications. May place bottles on rack to drain off alcohol before packing. May tend centrifuge machine that separates plasma from red corpuscles present in whole blood. May tend fractionator machine that breaks down plasma into proteins by centrifugal action.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

559.685-094 FUSE MAKER (chemical)
Tends equipment to make fuses for pyrotechnics: Screens black powder to required fineness and pours it into hopper of spinning machine. Threads end of rolls of cotton roving into spindle of spinning machine. Starts machine that automatically spins strands of cotton yarn together and around a train of black powder to make fuses and winds fuses onto bobbins. Stops spinning machine and removes bobbins. Positions filled bobbins in holders of dope trough. Threads fuses over pulleys in dope trough and drying chamber, fastening ends of fuses to reels in drying chamber. Fills trough with dope and regulates temperature of drying chamber. Starts motor to pull fuses through dope and through heated chamber to dry dope-covered fuses and to wind fuses onto reels. Removes reels of dried fuse when automatic counter indicates that specified amount of fuse has been wound onto reel.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

559.685-098 GLUE-MILL OPERATOR (chemical) alternate titles: paste-mill operator
Tends line of mills, conveyors, shakers, and filling machine to break, sift, and package dry glue or gelatin: Starts mills, conveyors, and shakers equipped with screens of prescribed mesh size. Opens gate in chute of hopper and drops coarse material into mill. Observes line to detect malfunction or breakdown of machinery as material is milled, sifted, and loaded into tank of filling machine. Stops line when malfunctions occur. Places container below filling machine and clamps spout equipped with scale to container. Opens valve to fill spout to prescribed weight, observing scale. Closes valve and opens slide gate to drop glue into container. Pushes slide gate to close spout and seals container. May stack bags on skid. May use device (levelator) which levels each layer of bags with floor to facilitate stacking.
GOE: 06.04.19 STRENGTH: H GED: R2 M2 L1 SVP: 3 DLU: 77

559.685-102 GOLF-BALL-COVER TREATER (toy-sport equip.) alternate titles: cover treater

Mixes chemicals, dips buckets of golf balls into chemical solutions, and tends machines that tumble balls in solutions to vulcanize, etch, and cure covers preparatory to painting: Pours specified amounts of chemicals and water into dip tanks. Fills dip buckets with balls and lifts bucket into tanks manually or using hoist. Moves bucket through series of dip tanks for specified time in each tank. Empties balls into storage boxes and moves boxes to curing room for specified time. Loads tumblers with balls and opens valves to fill tumbler with water. Measures and pours or pumps in specified amounts and types of chemicals. Runs tumblers for set time, empties solution, and fills and runs tumbler through rinse cycle. Repeats chemical treating and rinse cycles according to curing specifications. Empties balls into buckets and places balls on racks for storage in drying room. May test sample balls for compression [INSPECTOR, GOLF BALL (toy-sport equip.)].
GOE: 06.04.11 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

559.685-106 IMPREGNATOR OPERATOR (chemical) alternate titles: catalyst impregnator

Tends tank in which catalytic material is impregnated with liquid chemicals for use in manufacturing butadiene: Weighs specified quantity of catalyst and dumps it into tank containing measured amounts of liquid chemicals. Turns steam valve to heat mixture in tank until boiling occurs, impregnating catalytic material. Determines specific gravity of mixture, using hydrometer, and adds specified types and quantities of reagents to attain prescribed specific gravity.
GOE: 06.04.11 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

559.685-110 LABORER, GENERAL (paint & varnish)

Performs any combination of following tasks involved in production of paints and varnishes: Dumps calcined and metallic pigments into hopper of automatic grinder to reduce pigments to powdered form. Spreads layers of cinders and black ash over screen of leach box and opens valve that sprays hot water on box to recover barium sulfide from black ash. Pumps pigment slurries and paints through filters to remove lumps and impurities. Fills cleaning tank with water and caustic and turns steam valve to heat tank. Places equipment to be cleaned, such as pails, chutes, and mixing pans in tank. Removes equipment from cleaning tank after specified time and rinses equipment, using water hose. Unloads drums, barrels, and raw materials from freight cars and trucks, and stacks them in warehouse or work areas. Cleans work areas, using broom, rags, and solvent. May be known according to specific task performed as Black-Ash Worker (paint & varnish); Equipment Cleaner (paint & varnish); Strainer (paint & varnish).
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-114 LATEX SPOOLER (rubber goods) alternate titles: spooler, rubber strand

Tends equipment to spool latex thread or wind latex ribbon into rolls: Pushes curing drum to position at spooling or winding equipment and fastens it in place. Attaches latex threads or ribbons from curing drum to spools or roll-winding equipment. Starts equipment that revolves curing drum to unwind goods and activates takeup equipment. Observes operation and adjusts speed of takeup to regulate tension. Straightens bent thread guides and ties broken threads. Removes and wraps filled spools or rolls, and packs them in carton for shipment. Weighs packed carton to determine yardage.
GOE: 06.04.07 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

559.685-118 LIME-KILN OPERATOR (paper & pulp) alternate titles: lime slaker

Tends kiln and mixing tanks to recover lime from lime sludge and produce slaked lime from recovered lime: Observes gauges and temperature charts on panel to detect variations in kiln temperature, amount of sludge in kiln, percentage of oxygen in kiln atmosphere, and rate that carbon dioxide is exhausted from kiln. Turns rheostats to regulate amount of sludge fed into kiln according to capacity of kiln. Adjusts dampers to maintain kiln at specified temperature. Turns rheostats to regulate intake fans according to percentage of oxygen in kiln and exhaust fans according to rate that sludge decomposes into quicklime and carbon dioxide. Starts conveyors to move quicklime from storage bins to dissolving tanks that automatically mix quicklime with water to form slaked lime.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-122 LINSEED-OIL-PRESS TENDER (oils & grease) alternate titles: linseed-oil-mill tender

Tends equipment that grinds, cooks, and presses flaxseed to make meal cakes for animal feed, and to obtain oil for use in making products, such as soap, paint, and varnish: Dumps flaxseed into grinding mill and starts mill to grind flaxseed into meal. Empties ground meal into tempering kettle. Turns valves to regulate and maintain specified temperature and moisture content in kettle. Opens valve to dump cooked meal between mats to form cakes. Places mats in hydraulic press. Starts press that lowers ram and presses oil from cakes.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

559.685-126 NOODLE-CATALYST MAKER (chemical)

Mixes materials and tends equipment to form kaolin into noodle-like strips, for use as catalyst in production of ethylene from alcohol: Dumps specified amount of kaolin into mixing trough, using wheelbarrow. Adds water until specified consistency is attained and mixes materials, using hoe, until mixture appears suitable for extrusion. Starts pug mill (extruder) and shovels mix into mill that extrudes kaolin mixture into noodles of specified length and thick
Places noodles on trays and loads trays into oven or drier for prescribed
Removes cooked noodles and stacks them in piles for later use.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-130 PIGMENT PROCESSOR (chemical; paint & varnish)

Tends one or more equipment units, such as reaction tanks, bleach t
wash tanks, filters, dryers, furnaces, and mills to process pigments, such as
nium, barytes, bentonite, and iron oxide for use in products, such as pain
dustrial coating, rubber, plastic, and ink: Pushes buttons on control pane
turns valves to start feed of raw materials, such as ore or scrap metal, into
essing equipment. Monitors gauges, dials, and recorders and adjusts equip
controls to maintain temperatures, pressures, and flow of materials acco
to specifications. May perform chemical tests on product to ensure conform
with specifications, using standard test equipment and procedures.
GOE: 06.04.11 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

559.685-134 POWDER-CUTTING OPERATOR (chemical)

Tends machine that cuts strands of smokeless powder into grains of
ignated size to produce explosives having uniform ballistic properties: Ch
gear ratio of machine-feed mechanism to cut grains to specified size.
flexible strands of colloidal powder through guide holes into cutter. Starts
of liquid coolant, such as alcohol or water, playing on cutting area to p
outbreak of fire. Empties fiber containers of cut powder into cart.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

**559.685-138 PRESS OPERATOR (rubber reclaim.) alternate titles:
ing-machine operator**

Tends equipment that washes and squeezes devulcanized scrap rubber
move caustic materials used in devulcanization process: Starts pumps or
chute to feed devulcanized rubber onto vibrating screen conveyor. Turns
to adjust spray that washes rubber. Observes screen that filters rubber r
from wash water to detect clogging of holes. Opens hopper chute to
washed material into screw press or between rollers that squeeze out
Feels pressed material to estimate remaining moisture content and
handwheels to adjust squeezing action of screw press or dewatering roller
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

**559.685-142 PRESSER (soap & rel.) alternate titles: cutter and pr
soap-press feeder**

Tends cutting and stamping equipment that cuts bars of soap from log
bars of soap) and embosses bars with firm name or trademark: Moves c
to regulate machine speed to maintain uniform movement of soap through
der (bar-forming machine), cutting and stamping machines, and cooling
Examines soap bars for clean-cut form and uniform color and stops equ
when bars are defective, unbolts plodder, and removes accumulated soa
plodder plate. May rub bars under running water to test them for smoo
Sends sample bars to laboratory for moisture tests. May tend press that
bars into specified shape.
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

**559.685-146 PRESSROOM WORKER, FAT (oils & grease) altern
tles: filter-press pumper; refiner bleacher**

Tends equipment that boils, agitates, bleaches, and cleans tallow:
valves to drain specified amount of tallow from storage tank into ble
tank and to create vacuum inside tank when vacuum bleaching method i
Moves controls to heat tank with steam and maintain specified temperatu
mits specified amount of carbon (ground charcoal) and diatomaceous ea
bleaching tank and starts agitator. Draws sample from tank and pours it
filter paper, observing its color for conformance to specifications. Adds
or diatomaceous earth to tank as required. Opens valves to force tal
steam pressure through filter press to remove foreign material and into
tank.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-150 REBRANDER (rubber goods)

Tends revolving wire brush and hot die presses that remove brand fro
ber footwear and rebrand footwear for sale under another vendor's nam
either of following methods: (1) Holds footwear with brand against wir
and buffs off brand. (2) Positions footwear on hot die press and presse
to lower ram and hot blanking die on brand to melt brand. Positions de
footwear on another hot die press equipped with rebranding die, place
of uncured rubber over brand location on footwear, and depresses p
lower ram for preset time to vulcanize patch into brand.
GOE: 06.04.07 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-154 RESTRICTIVE-PREPARATION OPERATOR (ordna

Tends mixing machine to prepare materials used in insulation ja
rocket-engine chambers, and repairs defective jackets: Weighs out an
specified quantities of chemical ingredients into mixing chamber of coll
Starts mill and moves controls to set automatic timer and maintain s
temperature of mixture. Opens valves to transfer mixed ingredients fr
to storage tanks. Examines and feels insulation jackets for defects,
breaks and surface flaws. Removes defects, using power grinder, and
cesses with specified insulation material, using spatula or spray gun. B
paired area, using power buffer.
GOE: 06.04.11 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

559.685-158 RUBBER CUTTER (rubber goods; rubber tire)

Tends machine that cuts bales of crude rubber into pieces: Remove
wooden wrapping or metal straps, using cutters. Loads bale into mach

using electric hoist or pulls bale from chute, using hook. Moves lever to release hydraulic ram that pushes bale through stationary knives. May remove burlap covering from bales and truck them to machine. May push bales onto bed of cutting machine. May pull layers of smoked or crepe rubber apart, using hook.
GOE: 06.04.07 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

559.685-162 SCREENER-PERFUMER (soap & rel.)
Tends equipment that screens soap powder and impregnates it with perfume: Adjusts chute slide to regulate flow of powder onto screens over hopper. Adjusts scale tank to weigh out specified amount of perfume. Turns valve to pump perfume through spray jets into powder hopper. Observes level of powder flowing into hopper and diverts powder into drums if specified level is exceeded.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

559.685-166 SEPARATOR OPERATOR (chemical)
Tends machine that separates crushed bone from glue liquor: Opens valve to start flow of bone emulsion into basket of separator machine. Starts machine and pumps separated glue liquor into storage tanks. Stops machine and removes basket of crushed bone. Weighs basket and dumps bone into elevator chute.
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

559.685-170 SPREADING-MACHINE OPERATOR (chemical)
Tends equipment that spreads and cuts glutinous material, such as glue and gelatin, into sheets for drying: Opens valve to allow glutinous material to spread onto conveyor belt or onto tray. Starts conveyor belt to move material through chilling tunnel to congeal, or cuts off material, using knife, when tray is filled. Turns on cooling system in chilling tunnel, observes thickness of congealed material, and regulates flow of material onto conveyor belt to ensure specified thickness. Starts knives that cut congealed material into sheets of specified length and machine that deposits sheets onto drying frames. Stacks drying frames or trays of glutinous material onto handtruck and pushes handtruck to drying compartments. May tend equipment to dry glutinous material [DRIER OPERATOR (chemical) VI].
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

559.685-174 TUBE-BUILDING-MACHINE OPERATOR (rubber goods)
Tends machine that forms air tubes from rubberized fabric for use in pneumatic airplane de-icers: Examines fabric over light for such defects as holes, tears, and fabric misweaves. Cuts defects from rubberized fabric strip with scissors, and rewinds strip onto reel. Threads specified reels of rubberized fabric and paper gum tape into machine. Fills machine dispenser with powdered soapstone and adjusts machine for specified tube diameter, using handtools. Starts machine that shapes and seals rubberized fabric into tubular form, dusts tubing with soapstone, and winds tubing on reel. Carries loaded reel to storage rack.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

559.685-178 TUMBLER-MACHINE OPERATOR (rubber goods)
Tends tumbler machine to break off *flash* from molded rubber products: Loads tumbler with rubber products and sets controls to regulate flow of liquid nitrogen to machine and tumbling time. Starts machine that freezes product to make it brittle and tumbles product to break off flash. Empties contents of tumbler on screening device to separate flash from rubber products.
GOE: 06.04.07 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.685-182 WASH-TANK TENDER (chemical)
Tends wash tanks and centrifugal wringers to wash and dry nitrated TNT: Starts agitators in wash tank to mix water and TNT received from NITRATOR OPERATOR (chemical). Turns valves to draw off wash water after prescribed washing and settling time and to regulate flow of steam or hot water to tank coils to maintain contents at specified temperature. Admits metered amounts of chemicals to facilitate purification and crystallization of TNT. Opens valves at bottom of tank to drop crystallized TNT through vibrating screen and water spray to form pellets. Pumps pellets from receiving pits to baskets of centrifugal wringers and starts wringers to expel water from pellets. Pulls lever to empty TNT from wringers.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

559.685-186 WET-END OPERATOR I (plastic-synth.)
Tends wet end of forming machine that forces viscose fluid between adjustable metal tips (bars) and into acid bath that coagulates fluid into continuous sheets of cellophane: Threads sheet through rollers and smooths moving sheet to remove slack and wrinkles. Performs titration test to determine strength of acid bath solution and adds specified quantity of chemicals to bath to maintain solution strength. Mixes fresh solution according to schedule and formula. Turns valves to drain tanks. Moves waste products to salvage area on handtruck.
GOE: 06.04.13 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

559.685-190 WET-END OPERATOR II (plastic-synth.) alternate titles: coagulator
Tends low pressure kettle and auxiliary equipment to coagulate latex particles in thiokol latex suspension: Opens valves and pumps specified amount of latex suspension and water into kettle. Starts agitator and turns steam valve to heat solution to specified temperature. Turns valve to admit acid into solution. Observes processing of solution and coagulation of latex suspension into uniform crumb size. Examines sample to determine clarity of water and turns valves to stop flow of acid into solution. Determines pH of batch, using test papers. Adds alkali to batch to neutralize acid content. Opens outlet valve to transfer suspension to filter or shaker screen for separation of crumb from liquid. May open water valve to cool solution in kettle prior to transfer. May tend auxiliary equipment to dewater crumbs. May record data from operations in log.
GOE: 06.04.13 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

559.686-010 COMPOUND WORKER (recording)
Performs any combination of following tasks in compound room of phonograph record manufacturing plant: Weighs out specified quantities of ingredients, such as lampblack, resins and plastic materials, and dumps them into hopper of mixing machine. Pulls kneaded compound onto rollers of mixing machine, using hook, as material flows from discharge end of machine. Breaks plastic sheeting into sheets of uniform length as it emerges on conveyor from cooling process, and weighs sheets on skids. Removes labels from defective records, using machine, to salvage material for reprocessing. Dumps delabeled records into machine that grinds material into scrap. May be designated according to particular task performed as Breaker Table Worker (recording); Grinder (recording); Roller Hand (recording); Weigher (recording).
GOE: 06.04.13 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

559.686-014 DRIER FEEDER (rubber reclaim.)
Feeds devulcanized scrap rubber stock into agitator tanks that wash it to remove caustic substance: Shovels specified amount of stock into tank of water and starts mechanical agitator. Shovels washed stock onto conveyors leading to drier or into dewatering device that squeezes moisture from stock. May adjust dewatering device, using wrench. May pump washed stock into vibrating screen to facilitate removal of moisture.
GOE: 06.04.07 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

559.686-018 HOSE-TUBING BACKER (rubber goods) alternate titles: rubber-tubing backer; tube backer
Feeds rubber tubing into machine that cements calendered gum rubber onto tubing to provide adhesive backing for braided fabric covering. May cut and cement gum rubber backing to rubber tubing.
GOE: 06.04.07 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.686-022 LABORER (pharmaceut.) alternate titles: batcher
Performs any combination of following duties concerned with processing and packaging drug and toilet products: Transfers specified ingredients from storage to production area, using handtruck. Assembles specified ingredients for compounding. Feeds plants, roots, and herbs into machines, such as silage cutters, fanning mills, and washing machines. Loads botanicals into driers. Cuts animal tissue into strips, using saws. Feeds strips into meat grinders. Opens drums and scoops or dumps contents into kettles, tanks, or machine hopper. Removes filled cartons from packaging machine conveyor.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

559.686-026 LABORER, GENERAL (rubber goods; rubber reclaim.; rubber tire)
Performs any combination of following tasks involved in production of rubber goods, reclaimed rubber, or rubber tires and tubes: Inserts, dumps, places, or pours materials in or removes materials from rubber processing machines and equipment, manually or using shovels, hoists, conveyors, or special devices. Replaces spools or coils of materials on supply racks or reels of machines. Loads and unloads materials, parts or products onto or from pallets, skids, conveyors, or trucks, manually or using hoists. Transports materials, parts, or products from storage areas to work stations, using handtruck or other conveyances. Arranges, stacks, or places materials, parts, or products into books or bundles for storage or shipping. Cuts materials to specified size and length, using knife, scissors, miter box or cutting machine. Pulls or trims *flash* and excess material from goods, manually or using knife or scissors. Imparts smooth finish or removes foreign matter or rough and uneven edges from goods, using buffing wheels or cutting machines. Fits, assembles, or bolts parts together, using cements, handtools, or mechanical devices. Performs minor repairs to salvage parts, such as cutting out and replacing defective areas, using variety of handtools and work aids. Dusts finished goods with powder, talc, or soapstone to prevent sticking during storage and shipping. Examines goods for obvious defects and imperfections and verifies weight and dimensions of goods, using fixed gauges and scales. Sorts, counts, or marks goods by size, grade, color, or salvageability. Bundles and packs goods in containers for shipping. Washes or cleans adhering stock, grease, dust and foreign matter from machines and equipment with water, solvents, or other cleaning compounds, using rags, brushes, and air or steam hoses.
GOE: 06.04.13 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

559.686-030 LABORER, VAT HOUSE (chemical)
Performs any combination of following tasks to process stock (animal skins, splits, fleshings, and trimmings) used to make glue: Loads stock onto conveyor leading to chopper or moves stock, using handtruck, and dumps stock into vat or mill. Gathers stock from vat or mill, using pitchfork, and tosses stock into truck. Cleans mills, vats, and floors, using forks, brushes, and water.
GOE: 06.04.19 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

559.686-034 OPENER (rubber goods)
Feeds grooved rubber weather stripping into machine that pulls it along die to force apart sides stuck together during curing.
GOE: 06.04.07 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

559.686-038 REDUCTION-FURNACE-OPERATOR HELPER (chemical; oils & grease)
Assists REDUCTION-FURNACE OPERATOR (chemical) or CATALYST OPERATOR, GASOLINE (chemical) in mixing and drying ingredients used to

produce or recondition catalysts: Loads materials into mixing tanks, places pans in driers, and empties dried material into containers on scale. Labels and removes containers to process or storage areas. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.686-042 SLABBER (soap & rel.) alternate titles: cutter, first; cutting-table operator, first; slabbing-machine operator; soap slabber

Feeds soap slabs into machine that cuts slabs into bars: Places slab of soap on cradle of machine. Starts motor or depresses clutch to activate mechanism that forces slab through cutting frame, divides it into bars, and deposits bars in racks at opposite end of cradle. Inspects bars for specified size. Removes scrap soap from cutter and dumps it into hopper for reprocessing. Pushes rack dolly into dryer. May draw cutting wires through soap slab, using hand-powered winch. May be designated according to size or weight of slab cut as Slabber, Light (soap & rel.).
GOE: 06.04.09 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

559.687-010 AMPOULE EXAMINER (pharmaceut.)

Examines ampoules filled with liquid drug products for discoloration, flaws in glass, presence of foreign particles, and specified filling level: Holds ampoule against light source and examines it, using magnifying glass or naked eye. Rejects defective ampoules. May hold ampoules alternately against black and white background to facilitate examination. May count and record number of inspected units and place in containers. May seal end of ampoule, using bunsen burner and tweezers [AMPOULE SEALER (pharmaceut.)].
GOE: 06.03.02 STRENGTH: S GED: R2 M1 L2 SVP: 3 DLU: 77

559.687-014 AMPOULE SEALER (pharmaceut.)

Seals ampoules filled with liquid drug products, preparatory to packaging: Rotates neck of ampoule in flame of bunsen burner to melt glass. Grips tip of ampoule, using tweezers, and draws tip away from neck to seal ampoule as glass hardens. Places sealed ampoule in basket for sterilization and inspection. May hold unsealed ampoule against jet of inert gas to displace air. May immerse sealed ampoules in dye bath to test for leaks. May tend machines that steam-wash and fill ampoules.
GOE: 06.04.34 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-018 CASTING-MACHINE-SERVICE OPERATOR (plastic-synth.)

Cleans casting machine and auxiliary equipment, such as pumps and exhaust hood, used in production of cellophane: Pumps solutions from casting machine to storage tanks or into system feeding other casting machines. Dismantles hopper and cleans viscose residue from internal parts, using water hose and airhose. Sprays walls and bottom of tanks with water to flush chemicals and sludge through drainage openings. Scrapes and scrubs tank walls, guide rods, and rollers, using scraper, steel wool, and sandpaper to remove deposits of viscose and other chemicals. Vacuums scrapings from tanks, using portable vacuum cleaner and rinses tanks and fixtures with water to remove remaining debris.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

559.687-022 CELL CLEANER (chemical)

Cleans electrolytic cells and cell assemblies, performing any combination of following tasks: Connects hose to water or steam line and flushes cell to clean surfaces. Scrapes assemblies, using handscrapers and wire brushes to remove accumulations of dirt, putty, scale, and encrusted salt. Transfers cathodes to washrack, using wheeled cart and hoist. Flushes cathodes and cathode screens with water to remove asbestos and caustic residue, and transfers cathodes to drying area. Flushes pit sump and recovered asbestos with water. Cleans sight glasses and glass tubing by dipping in acid, solvent, and water. May be designated according to cell equipment cleaned as Cathode Washer (chemical).
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-026 CONTACT-ACID-PLANT-OPERATOR HELPER (chemical)

Performs any combination of following duties in production of sulfuric acid: Diverts acid stream from production unit to storage tanks as directed. Inspects machinery and equipment to detect malfunctions, leaks, and spills. Cleans work area around units, using broom and shovel or water hose. Collects samples of product for laboratory testing. Records gauge readings and levels of acid in tanks.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-030 COTTON WASHER (plastic-synth.) alternate titles: cotton cleaner

Dumps cotton linters into tubs for washing and bleaching. May dump washed and bleached linters into wringer unit and be designated Cotton Wringer (plastic-synth.).
GOE: 06.04.39 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

559.687-034 EGG PROCESSOR (pharmaceut.) alternate titles: harvester

Removes virus-bearing fluid from fertile chicken eggs for use in manufacturing vaccines, such as influenza vaccine: Saws end off egg, using electric saw, and removes fetal membrane, using tweezers to break sac containing viral fluid. Siphons fluid into sterilized and labeled bottles for further processing. Sterilizes tweezers by dipping them into antiseptic solution after each egg has been harvested.
GOE: 06.04.34 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-038 FILTER CLEANER (plastic-synth.) alternate titles: clarifie filter changer; filterer

Cleans gum and other sediment from filter that strains viscose or similar ce lulose solution before it is spun into filaments for rayon yarn or cast into tran parent wrapping material: Removes core or center of filter from its casing. R moves cloth wrappers of core and rewraps it with clean cloth. Replaces oth strainers in filters that need cleaning.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-042 FILTER WASHER (chemical) alternate titles: strainer clea er

Boils, washes, and cleans filters, such as cloth strainers and metal grids us in manufacture of explosives: Soaks filters in solution of boiling water and so powder or caustic solution. Scrapes and dissolves with acetone any tetryl po der remaining. Hangs cloth filters on drying racks.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-046 FRAME STRIPPER (chemical) alternate titles: stripper

Loosens and removes dry glue or gelatin from drying frames by striki frame with whip or by placing frame upside down on vibrating table. Dum glue or gelatin into hopper of grinding machine.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

559.687-050 LABORER, CHEMICAL PROCESSING (chemical) alterna titles: drum carrier

Performs any combination of following tasks in chemical manufacturing tablishment: Fills or empties equipment and containers by pumping, openi valves, scooping, dumping, scraping, or shoveling liquid, gaseous, or solid m terials. Weighs materials and writes or stencils identifying information on co tainers. Fastens caps or covers on container, or screws bungs in place. Tra ports materials, using handtruck. Cleans stills and other equipment, using det gents, brushes, or scrapers. Loads railroad cars or trucks. Delivers samples laboratory. Cleans work areas. Prepares materials by pulverizing, milling, cru ing, or liquefying. Paints containers, using spray gun. May be known accordi to task performed as Carboy Filler (chemical); Drum Filler (chemical); Kett Room Helper (chemical); Shipping Hand (chemical); Wheeler (chemical).
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 80

559.687-054 SKEIN-WINDING OPERATOR (any industry)

Winds skeins of thread used to test effect of dyes, using hand-turned cra Passes end of thread through guides and attaches it to winding arm. Tu crank to wind thread onto skein. Weighs wound skeins and pulls away exc thread or winds additional turns onto skein to attain specified weight.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

559.687-058 SOAP INSPECTOR (soap & rel.)

Inspects bars of toilet soap to ensure conformance to product specificatio Removes soap from conveyor and inspects bar for defects in shape, depth a clarity of embossing, and conformance to color specifications. Rubs fing lightly over bar to test for smoothness. Places approved bars back on conve and places rejected bars into box for reprocessing.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-062 TANK CLEANER (chemical; plastic-synth.) alternate titl kettle chipper

Cleans storage tanks and glass-lined, high-pressure reaction vessels used production of copolymer synthetic rubber: Turns vacuum system valves to move vapors from vessels, and locks electrically driven agitator in positi Steams and ventilates vessels, using steam and airhoses. Removes solidif resin from vessel and cleans inner surfaces and equipment, using sparkpr safety tools, cleaning compounds, and waterhose. May test fumes with exp sion meter to determine presence of explosive mixture of gases.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

559.687-066 TUBE SORTER (rubber reclaim.) alternate titles: tu depatcher

Scans and feels scrap rubber tubes to identify butyl, synthetic, or natural r ber and sorts them into separate piles. Cuts out cots (valve patches), us knife. Loads sorted tubes into boxes, and weighs boxes on scale. Tags bo to identify contents and record weight. May cut out valve stems. May b depatched tubes [BALING-MACHINE TENDER (any industry)]. May cut sa ples from tubes and test with specified acid to determine if rubber is natu or synthetic.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

559.687-070 WEIGHER OPERATOR (chemical) alternate titles: c veyor-weigher operator; cotton-weigher operator

Weighs out specified amounts of dried and fluffed cotton linters prior nitrating process in manufacture of smokeless powder. Rakes dried cotton l ers into weigh cans, removing dust clusters and inadequately processed cott Moves weigh cans along overhead monorail to section of rail connected w scales. Adds or removes linters to obtain specified weight. Pushes weigh c along monorail to drive chain which conveys cans to next operation. May re late drier temperature and speed of conveyor [CONTINUOUS-LINTER-DRI OPERATOR (chemical)]. May combine specified amount of acid a preweighed amount of cellulose in dipping pot in which they react chemica to produce nitrocellulose.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

559.687-074 INSPECTOR AND HAND PACKAGER (plastic prod.)

Inspects molded plastic products, such as bottle caps or tops, for defects, packs inspected products into shipping cartons: Visually examines molded pr

ucts for defects, such as scratches, discoloration, and *flash*, and discards defective products. Packs inspected product in cartons according to customer specifications, and carries cartons to storage area. May attach metal bands to bottle tops prior to packing to form necks for bottles and measure necks to ensure specified length, using gauge.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 86

56 OCCUPATIONS IN PROCESSING OF WOOD AND WOOD PRODUCTS

This division includes occupations concerned with producing wood particles, such as chips, sawdust, and powder, and conglomerates, such as plywood, particle board, and compressed-sawdust fuel logs, from stock, removing moisture from wood; and treating wood with materials, such as preservatives and fire retardants.

560 MIXING AND RELATED OCCUPATIONS

This group includes occupations concerned with mingling wood in pulpy or pasty form to produce a consistent mass of compound for such purposes as making particle board.

560.465-010 CHIP-MIXING-MACHINE OPERATOR (wood prod., nec) alternate titles: chip mixer; glue-mixer operator; glue-plant operator

Tends machine that mixes wood chips and glue preparatory to extruding particle board: Pulls lever to admit dried chips from storage bins into rotary batch mixer. Weighs resin glues and catalyst material according to formula and pours materials into mixer. Verifies moisture content of chips by feeling chips with hand or by weighing sample of chips, drying sample in miniature oven, computing weight of moisture removed, and converting weight to percentage, using mathematical tables. Adds water to mixture if chips are too dry. Notifies DRIER TENDER (concrete prod.) to increase or decrease drier temperature to control moisture content of chips. Pulls lever to discharge mixture into extruder hopper.
GOE: 06.04.14 STRENGTH: L GED: R3 M3 L2 SVP: 3 DLU: 77

560.585-010 MIXING-MACHINE TENDER (wood prod., nec) alternate titles: cork mixer

Tends one or more mixing machines that compound ground cork: Measures ingredients, such as glycerin, glue, resin, and ground cork, according to formula, and shovels or dumps them into machine hopper. Starts machine and opens steam valve to heat and mix ingredients. Observes gauges and adjusts steam and coolant valves to maintain specified temperature and attain standard mixture. May set timer to stop machine automatically. Drains sample of mixture from machine for laboratory analysis. Starts conveyor or places bag over opening and pulls chain that opens chute and dumps mixture onto conveyor or into bag for transfer to storage bins. Records operational data, such as yield, temperature, and time cycle. May be designated according to type of product mixed as Mixing-Machine Tender, Cork Gasket (wood prod., nec); Mixing-Machine Tender, Cork Rod (wood prod., nec).
GOE: 06.04.14 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

560.587-010 COMPOUNDER, CORK (wood prod., nec) alternate titles: cork mixer

Measures or weighs ingredients, such as sulfur, zinc oxide, stearic acid, and granulated cork, preparatory to mixing into cork composition material: Scoops or pours ingredients on scale or in graduate and dumps prescribed quantities, into containers. Marks or stencils container to identify materials and records quantities and types. Scoops samples from containers and delivers them to laboratory for analysis. Delivers filled containers to mixing machine, using handtruck.
GOE: 06.04.14 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

561 WOOD PRESERVING AND RELATED OCCUPATIONS

This group includes occupations concerned with impregnating and covering wood and wood products with substances that prevent decay and rotting.

561.131-010 TREATING-PLANT SUPERVISOR (wood prod., nec)

Supervises and coordinates activities of workers engaged in treating wood products with preserving and fireproofing chemicals: Analyzes production charts, manuals, and customer specifications, and examines types of wood, to determine treatment of wood. Orders treating sequence, type of chemicals used for treatment, temperature and pressure in retort, and length of time wood is to remain in retort. Observes gauges and progression charts to detect malfunctioning equipment; and adjusts controls to regulate temperature, pressure, or level of liquid in retort to correct malfunction. Tests wood borings, using laboratory equipment, to verify specified treating solution and moisture content, retention of preservative, and depth of penetration and concentration of salt. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to process supervised as Supervisor, Incising (wood prod., nec).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

561.362-010 TREATING ENGINEER (wood prod., nec) alternate titles: retort engineer; timber-treating-tank operator; treating-plant operator

Controls one or more cylinder retorts to impregnate wood products, such as railroad ties, piling, telephone poles, and fenceposts, with preserving or fireproofing chemicals: Turns valves to admit treating solution into retort and steam into heating coils. Presses buttons to activate vacuum- and hydraulic-pressure pumps that remove air and steam from retort and force treating solution into pores of wood to accelerate treatment process. Observes gauges and turns valves to maintain specified heat, vacuum and hydraulic pressure, and level of solution in retort during each phase of treatment cycle, according to treating schedule. Pumps treating solution back into storage tank at end of treating cycle. Opens, or signals TREATING-ENGINEER HELPER (wood prod., nec) 561.685-010 to open, retort doors. Heats unseasoned wood in retort to remove moisture preparatory to treating process. May operate locomotive or winch to move tram loads of wood products in and out of retort. May take and test sample borings, using laboratory equipment, to determine if treatment meets customers' specifications or standard chemical-analysis requirements. May be required to hold license.
GOE: 06.02.18 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 78

561.585-010 STAIN APPLICATOR (wood prod., nec)

Tends machine that sprays stain preservative on finished lumber to retard decay and excessive weathering: Empties drums of stain into storage tank and turns valve to combine water with stain at specified ratio. Turns valve to pump staining solution into spray units, and turns dial to adjust spray on lumber passing on conveyor. Examines lumber to determine amount of solution being applied, and adjusts spray units to ensure adequate coverage while preventing excessive waste. Opens valves to switch to alternate tank when solution level is low. Cleans equipment and work area, using airhose, water hoses, and other cleaning aids. Records amount of stain preservative used.
GOE: 06.04.21 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

561.587-010 POLE INSPECTOR (wood prod., nec) alternate titles: pole classifier

Inspects poles and piling supplied to plant for defects and classifies them according to size and specifications preparatory to treating process: Examines poles for framing and defects, such as splits and knots. Measures length and diameter of poles. Stamps or writes measurements and symbols on ends of poles. Classifies poles according to size and prepares written report showing size, class, and number of poles ready for treating process.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

561.665-010 TANKER (wood prod., nec) alternate titles: dip tanker; platform worker; scaffold worker

Tends open tank to impregnate wood products with preservatives: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to lift load of material over tank and guides load into tank by hand or with rod, working from elevated platform. Chains tank loads of poles to high rack to prevent toppling. Observes gauges and turns valves to regulate heat and flow of preserving solution in tank. Impregnates sashes, doors, and other millwork products, using hand or power hoist to load and unload tank. May tend vacuum-type dip tank that impregnates wood by pressure.
GOE: 06.04.18 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

561.685-010 TREATING-ENGINEER HELPER (wood prod., nec)

Assists TREATING ENGINEER (wood prod., nec) in impregnating wood products with preserving or fireproofing chemicals, performing any combination of following duties: Opens and closes retort door, using pneumatic wrench. Turns steam, vacuum- or hydraulic-pressure, or solution valves in response to signals. Tends pumps to transfer chemicals from railroad cars, trucks, or boat tankers into storage tanks. Drills test-bores in treated or untreated wood, using hand drill. Moves trams loaded with products in and out of retort. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

561.686-010 LABORER, WOOD-PRESERVING PLANT (wood prod., nec)

Performs any combination of following duties to store, move, treat, and process wood products in wood-preserving plant: Piles wood products, such as ties, piling, poles, and fence posts, on trams, by hand or by use of overhead hoist. Inserts wooden strips to bind and space load, and shapes load to fit cylinder retort. Chains or bolts down tram loads, using wrenches and fasteners. Bolts and unbolts doors of retorts with hand or pneumatic wrench. Pulls loads in and out of retorts, using winch. Drills test-bores in treated or untreated wood with hand drill. Opens and closes valves for operating retort. Loads and unloads wood materials from railroad cars, trucks, and barges. Moves and positions timbers and piling in framing or pole yard. Feeds woodstock into various machines that adz, bore, cut, incise, or peel it; and removes processed material by hand or by use of hoist. Burns identification markings in poles, using branding iron. May be designated according to duties performed as Adzing-and-Boring-Machine Helper (wood prod., nec); Cross-Tie-Tram Loader (wood prod., nec); Tie Handler (wood prod., nec); Wincher (wood prod., nec).
GOE: 06.04.18 STRENGTH: V GED: R2 M1 L1 SVP: 2 DLU: 77

561.687-010 WOOD-POLE TREATER (wood prod., nec)

Treats underground portion of transmission poles with chemical preservative after installation: Digs around base of pole to expose area susceptible to decay.

using pick and shovel. Scrapes dirt and other residue from pole surface and chips away decayed wood, using handtools. Paints dressed area with preservative solution, using brush. Wraps treated portion of pole with waterproof paper, fastening paper with hand stapler. Refills hole and packs earth firmly around base of pole, using shovel.
GOE: 06.04.25 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

562 SATURATING, COATING, AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with thoroughly soaking, filling, charging, or otherwise treating wood with a variety of substances to the point where no more can be taken up, or covering wood with another substance.

562.485-010 WHITING-MACHINE OPERATOR (wood prod., nec)
Tends machine that coats picture-frame molding with hard, glossy composition as base for painting: Digests measured quantities of glue, rosin, linseed oil, and water in heated gluepot, following work order and specifications. Pours liquid into heated mechanical mixer, adds whiting (powdered chalk), and starts mixer that automatically stops when mixture is of specified consistency. Turns handwheels to adjust tension of feed rollers, using sample strip of stock molding to verify tension. Fills supply chamber of machine with coating mixture and starts machine. Inserts molding stock in guide under rollers that force it through supply chamber. Picks coated stock from chamber and stands it on end until coating has hardened.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

562.665-010 LOG COOKER (wood. container) alternate titles: steam-vat tender; wood cooker
Tends steam or hot-water vats that condition logs before cutting into veneer sheets used in making wooden slat baskets and boxes: Hoists logs into vat or onto conveyor that carries them into cooker. Turns valves to maintain steam pressure or water temperature at specified setting. Removes logs or directs their removal after prescribed time, depending on size of logs and kind of wood. May remove bark from logs, using handtools.
GOE: 06.04.18 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

562.665-014 STEAM-BOX OPERATOR (woodworking) alternate titles: retort operator; stave steamer; steam-tunnel feeder
Tends retort that steams woodstock to make it pliable: Places stock into retort or loads stock on conveyor or car that conveys material into retort. Turns lever to seal retort door and turns valve to admit steam into retort. Observes pressure gauge and informs SUPERVISOR, MACHINING (woodworking) if pressure varies from standards. Removes steamed stock from retort and conveys stock to succeeding work station. May remove steamed stock from retort and place it in jigs to dry and cool.
GOE: 06.04.18 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

562.682-010 HUMIDIFIER OPERATOR (wood prod., nec)
Controls humidifier unit and auxiliary equipment to impart specified moisture content to pressed hardboard sheets or panels: Starts hydraulic elevator to position humidifier car (wheeled buggy) at discharge end of press that forms hardboard and deposits formed sheets or panels in rack of car. Pushes loaded car to humidifier unit and starts hydraulic ram to transfer car to humidifier. Observes gauges, opens valves, and moves controls to regulate moisture, heat, and pressure in humidifier to impart specified moisture content to board. Starts elevator to lower car, automatically ejected from humidifier, to unload and transfer board for tempering. Inspects board for watermarks, scratches, and similar imperfections and rejects substandard units. Removes screens from forming press used to support wet pulp mats for pressing into hardboard. Examines screens for damage and marks faulty screens for repair or disposal. Records number of boards processed and rejected. Labels each lot of hardboard passing inspection to facilitate further processing.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

562.685-010 GLUE-SIZE-MACHINE OPERATOR (furniture)
Tends machine that coats wooden furniture panels with glue size and dries panels to raise grain and reveal defects: Mixes sizing solution according to specifications and pours solution in tank. Starts machine and places panels on conveyor that carries them under sizing spray or rollers and through drying cabinet.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

562.685-014 IMPREGNATOR (pen & pencil)
Tends equipment that impregnates wooden pencil slats with dye, oil, and wax to color and soften slats: Places bundles of slats in cylinder and closes door. Turns bolts to secure cylinder door, using wrench. Measures out and pours specified amounts of dye, oil, and wax into tank. Turns switches and valves to pump solution from tank into cylinder to impregnate slats for specified time. Pumps solution from cylinder to tank and opens cylinder door. Removes slats from cylinder and places them in drying kiln.
GOE: 06.04.18 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

562.685-018 OPERATOR, PREFINISH (millwork-plywood)
Tends machines in tandem that coat surfaces of decorative hardwood-veneer panels with stain, paint, or wax: Mixes stain according to formula, using graduated container, mixing drum, and portable mixer. Connects hoses of coating machines to containers of stain, paint, and wax. Measures thickness of panels, using steel tape, and turns handcranks to adjust coating machines. Moves controls to activate conveyors and pumps, to set thermostats on heating ovens, and to start sanding, roller-coating, and spray-coating machines. Compares processed panels with sample panel to verify adherence to specifications. Pumps cleaning solution through lines of machines upon completion of process; and replaces worn components, such as rollers, brushes, doctor blades, and sandpaper.
GOE: 06.02.21 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

562.685-022 COATER, SMOKING PIPE (fabrication, nec)
Tends machine that sprays and coats interior of smoking pipe bowls with mixture of charcoal, shellac, and alcohol: Pours specified amounts of charcoal, shellac, and alcohol into agitator and mixes solution for specified period to prepare coating solution. Pours solution through filter into tank, replaces tank top, pulls lever to start machine pump, and turns handles to regulate pump pressure to specified setting. Attaches hose and spray nozzle to machine, using wrench and pliers. Reads work ticket to determine shape and size of pipe bowl to be processed. Places corresponding size of collar on machine spray nozzle. Positions and holds pipe bowl on collar, and depresses pedal to spray and coat inside of bowl with coating solution. Places coated pipe bowls in box for storage. Disassembles and cleans spray nozzle and hose, using wrench, pliers, methanol, rag, and brush.
GOE: 06.04.21 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 86

562.686-010 STEAM-TUNNEL FEEDER (saw. & plan.)
Pushes cars, loaded with halved and quartered logs, into steam tunnel that steams and softens fiber of wood before logs are cut into staves.
GOE: 06.04.18 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

562.687-010 DYER (woodworking)
Colors handles or other small wooden articles with dissolved dyes: Fills vat with water. Stirs specified amounts of various dyes into water with stick. Dumps articles into vat. Opens valve to release steam into vat and allows liquid in vat to boil for specified time. Drains vat, forks out articles, and loads them into drying and polishing drum.
GOE: 06.04.33 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

562.687-014 RESIN COATER (wood prod., nec) alternate titles: coater, hand; cork coater
Coats cork products, such as floats, washers, and gaskets, with liquid resins: Pours premeasured quantities of liquid ingredients into tumbler to prepare coating solution. Dumps cork products into solution to soak. Determines soaking cycle of products, using knowledge gained through experience. Scoops cork products from tumbler, drains off excess solution, using strainer, and dumps them into containers.
GOE: 06.04.33 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

563 DRYING, SEASONING, AND RELATED OCCUPATIONS

This group includes occupations concerned with exposing to or treating wood with air, heat, fire, a vacuum, or the like for such purposes as removing moisture, curing, charring, and aging.

563.135-010 SUPERVISOR, DRYING (millwork-plywood)
Supervises and coordinates activities of workers engaged in drying veneer sheets in kilns: Confers with supervisors of subsequent processes to determine grade and amount of veneer sheets required, and schedules production to meet priority orders and production quotas. Measures moisture content of dried veneer, using moisture meter, and adjusts conveyor and blower speeds when deviations from company standards are detected. Instructs and demonstrates methods of work to new employees. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

563.137-010 SUPERVISOR, BEEHIVE KILN (chemical)
Supervises and coordinates activities of workers engaged in tending woodburning kilns that produce charcoal at briquette manufacturing establishment: Examines supply of cordwood to determine weight, size, and quality of wood to be loaded into kilns; and instructs workers in loading kilns. Starts fire in kiln fuel boxes, and directs workers to seal doors and adjust flue controls to regulate woodburning process. Supervises removal and transporting of charcoal from kilns to storage or shipping areas. May purchase cordwood from woodcutters at plant site for use in making charcoal. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 78

563.382-010 KILN OPERATOR (woodworking) alternate titles: dry-kiln operator
Controls dry kilns to dry lumber to specified moisture content: Measures moisture content of lumber preparatory to drying, using moisture meter, or cuts, weighs, and places lumber samples in curing oven and reweighs samples periodically as they are drying to determine rate and percentage of moisture reduction. Determines drying cycle and schedule, considering factors such as species, dimensions, and quantity of lumber to be dried, initial moisture content of lumber, or moisture reduction rate of lumber samples. Presses buttons, or turns valves and control knobs to activate, control, and record temperature, humidity,

and ventilation of dry kilns. Reads recording gauges and weighs lumber samples periodically during seasoning process, and readjusts temperature and humidity controls to regulate moisture reduction rate and avoid damage to lumber. Measures moisture content of lumber at completion of drying cycle, using moisture meter, to ensure that specified amount of moisture has been removed. Maintains records of species, dimensions, and footage of lumber dried, and initial and final moisture content of lumber. Changes graphs on pen-graph recorders as required. May direct workers engaged in loading lumber onto kiln cars, placing cars in kilns, and removing dried lumber from kilns.
GOE: 06.02.18 STRENGTH: L GED: R3 M3 L2 SVP: 6 DLU: 78

563.585-010 DRIER TENDER (wood prod., nec)
Tends gas-heated continuous drier that dries wood chips to prescribed moisture content for use in particle board manufacturing: Turns valve and thermostat and presses buttons to ignite gas, set drier temperature, and activate drier, conveyors, and blower fans. Moves controls to synchronize speed of conveyors and blower fans to ensure continuous flow of wood chips from storage hopper through drier and into dry-storage bin. Observes gauges and collects, weighs, and tests sample of dried chips, using scales and electronic moisture tester, to ascertain moisture content of chips. Resets controls to maintain prescribed temperature and humidity, according to test and gauge readings. Records test results in log.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

563.662-010 TREATING-PLANT OPERATOR (wood prod., nec)
Controls oven, humidifier unit, and auxiliary equipment to temper pressed hardboard by heat and moisture: Observes gauges and chart recorders on instrument panel and adjusts controls to start fans, set oven temperature, and regulate moisture conditions in humidifier unit according to plant specifications. Tends machine that immerses hardboard sheets in oil to impart smooth finish on both sides. Pushes hardboard sheets to be tempered onto roller conveyor leading from oiling machine to tilting device that dumps sheets into electric transfer cart. Drives loaded cart to oven. Pulls overhead wire to position loaded cart in oven to cure board. Drives cart from oven to humidifier unit after prescribed time and back to tilting device for unloading board after tempering. Starts mechanism that dumps tempered board from cart. Inspects board for defects, such as scratches, streaks, and discoloration. Verifies adherence of board to specifications, using viscometer to determine resilience of sheet to known stress, and coating machine that applies varnish to board surface to test sealing qualities of finish. Delivers samples of tempered board to control laboratory for exhaustive testing. Keeps records of gauge readings, test results, and shift production. Labels ticket attached to each lot of tempered board to facilitate work of inventory control and shipping personnel.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

563.682-010 CHARCOAL BURNER, BEEHIVE KILN (chemical) alternate titles: collier; kiln burner
Operates series of beehive kilns to produce charcoal: Places kindling in kiln and starts fire. Seals top of kiln when specified heat is attained, using cement and hand trowel. Observes color of smoke as it issues through draft holes in kiln bottom to ensure burning of charcoal as specified. Opens and closes draft holes, using bricks, to regulate forming of charcoal. Seals draft holes and cracks in kiln with cement to smother fire when charcoal has been formed.
GOE: 06.02.18 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

563.685-010 BARK-PRESS OPERATOR (paper & pulp)
Tends hydraulic bark press that squeezes water from pulpwood bark: Starts conveyor and observes wet bark as it passes into hydraulic press. Pushes button to actuate press that squeezes water from bark and emits dried bark onto conveyor leading to boilerroom. Frees bark jammed on conveyor, using rake. Sweeps and cleans work area. May tend rotating cutter that cuts oversized bark to suitable size for feeding into press.
GOE: 06.04.14 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

563.685-014 CLOTHESPIN-DRIER OPERATOR (woodworking)
Tends machines that dry and polish clothespins: Loads drum of machine with clothespins and wax blocks. Admits steam into drum and starts its rotation. Stops machine after specified tumbling time. Unloads clothespins when dry.
GOE: 06.04.21 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

563.685-018 DRY-HOUSE ATTENDANT (woodworking) alternate titles: wood-stock-blank handler
Tends kiln that conditions wood used for firearms stocks and shaped wooden articles: Examines woodstock ends to determine whether tar or wax coating meets specifications. Dips stock blank ends into vats of tar or wax to prevent splitting during drying. Places stock in oven and turns gas valves to regulate temperature to specified heat. Observes wood blanks to determine whether drying is required. Removes wood blanks to storage sheds. Records storage time and amounts processed, coated, scraped, and rejected.
GOE: 06.04.18 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

563.685-022 VENEER DRIER (millwork-plywood) alternate titles: veneer-drier tailer
Tends conveyor-type drier that dries freshly cut veneer sheets to prevent mildewing and discoloration: Turns valves to regulate temperature of drying oven according to thickness and moisture content of veneer. Presses buttons or turns lever or handwheel to regulate speed of conveyor belt or feed rollers. Removes veneer sheets from conveyor belt or rollers as they emerge from drying oven and stacks them on handtruck. May measure moisture content of discharged veneer sheets, using moisture meter, to ensure specified drying. May discard sheets with defects, such as splits, knotholes, or decayed sections. May return incompletely dried veneer to be fed again into drier. May feed machine [VENEER-DRIER FEEDER (millwork-plywood)].
GOE: 06.04.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

563.685-026 VENEER REDRIER (millwork-plywood) alternate titles: platen-drier operator
Tends platen drier that redries veneer to ensure uniform moisture content before gluing into plywood or furniture parts: Turns valve to admit steam to platens and adjusts pressure control so that specified steam pressure will be supplied to heat platens. Inserts veneer between platens and turns handwheel or pulls lever to close platens. Opens platens and removes dried veneer sheets.
GOE: 06.04.18 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

563.686-010 STICKER (saw. & plan.)
Pulls reclaimed stickers from conveyors or portable bins and places them in racks of stacking machine. Moves levers on panel to open or lock racks according to number and spacing of stickers required between lumber courses, or places stickers between lumber courses manually.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

563.686-014 VENEER-DRIER FEEDER (millwork-plywood)
Feeds freshly cut veneer sheets into drier that dries veneer: Pushes handtruck of veneer into position at loading end of drier. Lifts sheets from top of stack and slides them onto conveyor that conveys sheets into and through drier, using care not to damage edges. May press pedal to activate elevator platform that raises veneer sheets to working level as stack is reduced.
GOE: 06.04.18 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

563.686-018 OFFBEARER, PIPE SMOKING MACHINE (fabrication, nec) alternate titles: pipe smoking machine operator
Off bears smoking pipes from smoking machine used to break-in (char) new pipe bowls: Removes pipe bowls from suction tubes of pipe smoking machine. Examines pipes to determine tobacco has been burned and places aside pipes containing unburned tobacco. Empties ashes into water bucket and inspects interior of charred bowls to verify conformance to company standards. Cleans smoker tubes, using wire pipe cleaner.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 1 DLU: 86

563.687-010 ANTICHECKING-IRON WORKER (wood prod., nec)
Hammers shaped steel bands into ends of timbers and railroad ties to prevent checking (splitting) while seasoning. May clamp, drill hole, and insert bolt or metal dowel through split timbers or ties to hold split parts together. May be designated according to shape of band as Beegle-Iron Worker (wood prod., nec); C-Iron Worker (wood prod., nec); S-Iron Worker (wood prod., nec).
GOE: 06.04.25 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

563.687-014 MOISTURE TESTER (woodworking)
Verifies moisture content of dried lumber, using portable electric moisture meter: Holds meter against ends of lumber or presses electrodes of meter into lumber and reads meter to determine moisture content. Removes and stacks pieces that do not meet specified percentage of moisture content.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

564 GRINDING AND CHOPPING OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with reducing logs and other wood material to chips, flakes, dust, or powder by means of compression, grinding, cutting, or smashing.

564.132-010 WOOD-CREW SUPERVISOR (chemical; saw. & plan.) alternate titles: supervisor, chipping
Supervises and coordinates activities of workers engaged in reducing scrap wood, stumps, and bark to wood chips or fuel: Inspects machinery, such as *hog mills*, hammer mills, chipping machines, knife grinders, and conveyors, to detect excessive wear or malfunctions, and schedules required maintenance or repair. Inspects processed wood chips to ensure conformance to plant specifications. Trains new workers in operation of machinery. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.03 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

564.662-010 LOG-CHIPPER OPERATOR (logging) alternate titles: chipper
Operates trailer-mounted grapple-loader and chipping machine to reduce logs and logging waste to wood chips: Controls loading boom and power-grapple attachment to pick up logs and place them on feed conveyor. Adjusts speed and opening of feed rolls according to log diameter, and activates feed rolls that pushes log through chipper unit. Monitors gauges and adjusts speed and opening of feed rolls to prevent equipment strain. Replaces defective chipping knives, using wrenches and feeler gauges. May control opening of debarking spuds (tined rotating drums) that remove bark from log before chipping.
GOE: 06.02.03 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

564.682-010 CHIPPING-MACHINE OPERATOR (wood prod., nec)
Operates machine to cut and screen peeler-log cores into chips of specified size: Installs and adjusts cutting knives and reciprocating screens to obtain

chips of specified size, using handtools. Starts machine and conveyors to transfer material between processes and to storage bins. Selects cores according to species and pushes cores onto feed conveyor, using pike pole. Observes chips moving through screens and makes required adjustments. May repair breaks in conveyor belts, using handtools.
GOE: 06.02.03 STRENGTH: M GED: R3 M1 L1 SVP: 5 DLU: 77

564.682-014 FLAKE-CUTTER OPERATOR (wood prod., nec)
Operates one or more machines that cut wood flakes of specified size from slabs, edgings, and core logs: Installs cutting knives, using handtools. Starts machines and discharge conveyors and feeds material into cutters. Observes cutting of flakes and turns dial to regulate speed of cutters and to control thickness of flakes. May operate lift truck to transport slabs, edging, and logs from supply area to machine.
GOE: 06.02.03 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

564.682-018 MILLER, WOOD FLOUR (woodworking)
Operates milling machine that pulverizes and sifts sawdust to make wood flour: Reads work order to ascertain quantity and particle size of flour required. Selects screen of specified mesh and places it on bed of reciprocating sifter. Starts hammer mill, conveyors, and sifter, and observes pulverizing and sifting operation. Inspects flour samples to verify adherence to specifications. Empties sifters, conveyors, or mills with handscoop when overloading or jamming occurs. Repairs holes in screens by gluing section of mesh over damaged area or by fastening screen onto frame. May sack flour.
GOE: 06.02.03 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

564.684-010 KNIFE SETTER, GRINDER MACHINE (paper & pulp) alternate titles: knife changer
Changes knives used in chipper machines that reduce pulpwood to chips: Dismantles machine, using hooks and chain hoist. Inspects blades, and removes defective blades with handtools. Removes chips collected between blade and disk wheel, using airhose. Bolts new blades in machine, using fixed gauge to obtain accurate setting. Files knife blades.
GOE: 05.10.02 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

564.685-010 BREAKER-MACHINE OPERATOR (saw. & plan.; wood prod., nec)
Tends machine, equipped with crushing rollers or hammers, that reduces corkwood, cork waste, or bark to fine particles: Dumps corkwood, waste, or bark into machine hopper or onto conveyor leading to machine. Removes wooden sticks and steel straps to prevent clogging. Starts machine that crushes and grinds material into fine particles and blowers that force ground particles over shaker screens to remove dust and separate ground material into bins, according to particle size. May tend machine equipped with conveyors that convey ground material through driers to remove moisture before segregating particles. May pull bags over bin outlets and open outlets to empty dust and ground cork or bark. May remove and stack filled bags on pallets. May record number of bags and grades of corkwood, waste, or bark processed.
GOE: 06.04.14 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

564.685-014 CHIPPER (chemical; paper & pulp; saw. & plan.)
Tends machine that reduces log slabs, stump wood, trimmings, and other scrap wood to chips of uniform size for making paper pulp and charcoal, and for use in wood distilling: Starts conveyor system that feeds wood into hopper of chipping machine. Positions pieces of wood on conveyor, using *picaroon* to prevent congestion and to regulate flow. May replace worn and bent knives, and adjust knives to vary size of chips, using handtools. May examine wood on feed conveyor for conformity to specified standards and remove nonconforming wood. May stop machine when jams or malfunctions occur, and clears machine or conveyor of wood pieces.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 81

564.685-018 HOG TENDER (woodworking)
Tends *hog mill* that grinds scrap wood into chips for use as fuel: Pulls lever to start hog mill and presses button to start conveyors that convey scrap wood to hog mill. Spreads scrap wood evenly across trough of conveyor, using hands, rake, or *picaroon* to regulate flow of wood and prevent damages to hog-mill knives. Stops machine and removes scrap wood lodged in throat of machine when machine becomes clogged. Lubricates hog mill and conveyors, using grease gun and oilcan.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

564.686-010 WOOD SCRAP HANDLER (millwork-plywood)
Feeds *hog mill* that grinds wood scraps into chips for use as fuel: Loads container, such as push cart or handcart, with wood scrap, and pushes or pulls container to hog mill. Lifts and throws wood chips from container onto conveyor that feeds hog mill. Spreads wood scraps evenly across conveyor to regulate flow of wood scraps to prevent machine damage or malfunction, such as clogged or damaged mill knives. May assist machine operators in cleaning work area.
GOE: 06.04.03 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 86

564.687-010 CHOPPER (chemical)
Saws and chops pieces of stumps into smaller pieces for feeding into chipper machine.
GOE: 06.04.25 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 77

569 OCCUPATIONS IN PROCESSING OF WOOD AND WOOD PRODUCTS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with processing wood and wood products.

569.130-010 GASKET SUPERVISOR (wood prod., nec)
Supervises and coordinates activities of workers engaged in fabricating and packing cork gaskets: Sets up machines, such as grinder, mixer, and punch press. Observes operation of machines to detect malfunctions and adjusts machines, using handtools and measuring instruments, such as gauges, calipers, and micrometers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

569.132-010 SUPERVISOR, PARTICLEBOARD (wood prod., nec)
Supervises and coordinates activities of workers engaged in manufacturing particleboards: Analyzes work orders to determine quantity, dimensions, and quality of panels to be produced. Plans work schedule according to priority of orders and availability of machinery. Inspects machinery and equipment, reviews machine status reports, and schedules maintenance and part replacements. Inspects consistency of particleboard mixture and finished particleboards for adherence to specifications. Explains and demonstrates job tasks and techniques to new workers. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 81

569.135-010 SUPERVISOR, VENEER (millwork-plywood)
Supervises and coordinates activities of workers engaged in gluing, assembling, and pressing veneer sheets and core boards into plywood panels, employing knowledge of production, products, and personnel practices: Analyzes work orders and route tickets to determine production schedules and type and dimensions of stock to be produced. Computes amounts of stock and supplies required and requisitions materials from storage area. Visually examines, feels, and measures dimensions of stock at various stages of processing, using measuring tape and dial thickness gauge, to determine if company specifications are met. Instructs and demonstrates methods of work to new employees. Confers with supervisory personnel to expedite production. May observe pengraph charts and oil gauges and adjust controls of hot-plate plywood press to regulate hydraulic pressure, temperature, and oil level of press. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 79

569.367-010 TREATING INSPECTOR (wood prod., nec)
Inspects logs and verifies their conformance to specifications before and during processing into poles for use in power line construction: Examines logs at timber-cutting site and selects logs for poles, inspecting each for soundness and size requirements. Tests logs at various times during seasoning period with *megger* to determine when specified seasoning has been attained. Inspects poles after framing to ensure conformance to specifications. Inspects test cores taken from poles during treatment and sends sample cores and treating solution to laboratory for analysis to ascertain that preservative treatment is being applied according to specification. Gives instructions to workers engaged in shipping and handling poles to avoid damage.
GOE: 05.07.06 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

569.382-010 LINE TENDER, FLAKEBOARD (wood prod., nec)
Operates machines and conveyors to dry, segregate, and treat wood flakes, form them into mats, and press them into flakeboard panels: Starts machines and regulates flow of resin and wax additives. Adjusts panel controls to regulate speed of conveyors, drying time and temperature, and platen pressure. Adjusts height of leveling-brush to control thickness and consistency of mat prior to pressing into flakeboard. Observes control panel of platen press to determine that panels conform to specifications. Weighs and measures sample panels, using scales, rule, and micrometers.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

569.384-010 QUALITY-CONTROL TESTER (wood prod., nec)
Tests samples of wood products to determine fiber content and strength, using test equipment and standardized formula: Gathers samples, such as particleboard and wood shavings, from production areas. Weighs wood shavings before and after drying process and computes weight variances for cost analysis purposes, using scale, calculator, and formula. Conducts pressure and strength tests on particleboard to determine quality control standards, such as moisture content, strength, and resistance, using test equipment. Records test results on company chart.
GOE: 06.03.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 86

569.565-010 CREW LEADER, GLUING (millwork-plywood)
Leads workers in gluing, assembling, and pressing veneer sheets into plywood panels, and tends glue mixing tanks: Reads work order to determine quantity, type, and dimensions of veneer sheets needed. Notifies INDUSTRIAL-TRUCK OPERATOR (any industry) 921.683-050 to deliver veneer sheets from storage to gluing area. Observes glue application and panel layering, pressing, and conveying processes to maintain establishment specifications. Assists GLUING-MACHINE OPERATOR, ELECTRONIC (woodwork-

ing) 569.685-050, using wrenches and handtools, in replacement of forms that shape panels to customer specifications. Notifies MAINTENANCE REPAIRER, INDUSTRIAL (any industry) 899.261-014 of machine malfunctions. Dumps measured dry ingredients into glue mixing tanks. Turns valves to admit specified amounts of liquid ingredients and presses button to begin agitators that automatically mix ingredients into glue.
GOE: 06.04.03 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 86

569.662-010 INCISING-MACHINE OPERATOR (wood prod., nec) alternate titles: perforating-machine operator
Operates machine to perforate wood products, such as timbers, ties, or poles, to facilitate penetration of wood preservatives: Installs knife-studded incising rollers in machine and sets roller stops according to size of material being processed, using hand wrenches and pry bar. Turns air valve to regulate pressure on incising rollers and starts machine and conveyor system. Signals other workers to load or move timbers or poles onto conveyor or powered feeding tram. Moves levers or presses pedal to regulate speed of conveyor and opening of incisor rollers to accommodate various size timbers and poles. Examines rollers, knives, bearings, and conveyor mechanisms, and replaces worn or broken parts, using handtools. May operate discharge conveyor with lifting controls to unload poles onto ramp or into water. May operate trim saw to square ends on poles. May brand poles or timbers, using branding hammer. May be designated according to product processed as Pole-Incisor Operator (wood prod., nec); Timber-Incisor Operator (wood prod., nec).
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

569.682-010 GRINDER, HARDBOARD (wood prod., nec)
Controls steam cooker and grinding machines to reduce wood chips to felt (fiber): Installs and adjusts grinding plates, using rule and handtools. Starts machines and conveyors and regulates steam pressure, cooking temperature, and spray or flow of water, wax, resin, and material. Observes cooking, grinding, and felting of material, pressure and temperature gauges, and flow and moisture charts to ensure that material is processed according to specifications.
GOE: 06.02.18 STRENGTH: M GED: R3 M3 L2 SVP: 6 DLU: 77

569.682-014 PRESS OPERATOR, HARDBOARD (wood prod., nec)
Operates line of machines to form wood fiber mats and to cut and press them into hardboard panels: Installs and adjusts stainless-steel cauls and screens, drive sprockets, chains, rollers, and cutoff saw, using handtools. Starts machine and cutoff saw. Observes gauges and turns valves to regulate water and steam pressure and to control temperature of press. Moves panelboard control switches to adjust pressing time and to synchronize timing of tiered feeding and unloading conveyors with elevator movement of tiered hardboard press. Observes forming of mat, cutting of panels, and pressing of panels into hardboard to ensure product of specified dimension and quality. May ride open elevator and flip end of panel in each tier of press to loosen it from hot pressing plate and facilitate automatic transfer to tiered unloading conveyor. May verify weight of sample panels, using scale.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

569.683-010 KILN-TRANSFER OPERATOR (woodworking) alternate titles: transfer operator
Drives electric-powered transfer (flat) car to transfer carloads of lumber between loading, drying, and storage areas, and operates winch to load and unload kilns: Turns rheostat lever to drive transfer car along track to loading platform, and aligns rails (tracks) on transfer car with rails on platform. Hooks winch cable to carload of lumber and pushes and pulls levers to activate winch and pull loaded lumber car onto transfer car. Drives transfer car with carload of lumber to designated dry kiln and aligns transfer car rails with rails into kiln. Hooks cable to lumber car and operates winch to pull lumber car into kiln. Pulls lumber car from kiln when lumber is dry and transfers it to storage or to processing department. May tend stacking machine that stacks and unstacks lumber onto lumber car [STACKER, MACHINE (woodworking)].
GOE: 05.11.04 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

569.684-010 LOG PEELER (saw. & plan.)
Peels bark from logs by hand, using two-handled drawknife: Pulls log from storage area and positions log for peeling, using cant hook. Secures log, using log-dog (wedge), and pulls drawknife lengthwise along log to strip bark from log. Rotates log and repeats stripping action until bark is removed from log. Chops branch stumps from log, using hatchet. Stacks stripped logs between spacing boards to facilitate drying of wood. Straps specified number of logs together, using steel banding tape and strapping tools.
GOE: 06.04.25 STRENGTH: V GED: R2 M1 L1 SVP: 2 DLU: 86

569.685-010 ARTIFICIAL-LOG-MACHINE OPERATOR (fabrication, nec; saw. & plan.)
Tends machines that automatically compress sawdust into artificial fuel logs and extrude them onto conveyors: Starts machines. Observes compression marks on finished logs to ensure that logs are compressed according to specifications, and turns thumbscrews to adjust degree of compression. Weighs sample log periodically to verify conformance to standards. May replace sawdust-feeding screws, using screwdriver and wrenches. May add chemicals to sawdust to produce log that burns colored flame.
GOE: 06.04.03 STRENGTH: L GED: R2 M2 L1 SVP: 4 DLU: 77

569.685-014 BENDER, MACHINE (woodworking) alternate titles: bending-press operator
Tends machine equipped with heated molds, platens, or roller that bends woodstock or veneer strips to form wooden parts for products, such as furniture, sports equipment, or musical instruments: Places or clamps steamed or water-soaked woodstock or veneer strips in molds or forms, under roller, or between platens shaped to specified design. Moves lever or presses button or pedal that raises hydraulic lift under molds, closes platens, or forces roller along form, to bend woodstock or veneer strips into specified shape. Removes formed parts from machine after specified period of drying time. May steam woodstock or veneer strips in retort to make them flexible [STEAM-BOX OPERATOR (woodworking)]. May convey processed parts to kiln for further drying or seasoning. May be designated according to article or part formed as Bender (toy-sport equip.); Rib Bender (musical inst.).
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

569.685-018 CORE FEEDER, PLYWOOD LAYUP LINE (millwork-plywood)
Tends plywood-layup line machine that applies glue to top surfaces of veneer sheets before assembly into plywood panels, working as member of team: Presses pedals to start machine and to activate infeed conveyors that convey stacks of *face sheets, crossbands,* and *core stock* to feed end of machine. Removes face sheets, crossbands, and core stock from respective infeed conveyors and places sheets in specified sequence on machine conveyor that carries sheets past trash gate and through glue curtain to BACK FEEDER, PLYWOOD LAYUP LINE (millwork-plywood) and CORE LAYERS, PLYWOOD LAYUP LINE (millwork-plywood). Presses pedals to open trash gate to remove detected unusable veneer, such as broken or split sheets, from conveyor.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

569.685-022 CORE-COMPOSER-MACHINE TENDER (millwork-plywood)
Tends core composer machine that automatically glues salvaged veneer strips together to form continuous sheet, saws continuous sheet in half, and clips sawn sheets to standard length for use as plywood *core stock:* Presses button to start machine. Depresses pedal to convey veneer strips discharged from tenderizer machine onto infeed conveyor of core composer machine. Pushes each strip against wedge-edge detector that detects oblique edges, and positions wedge-shaped veneer strips against oblique edges to form square edges prior to gluing. Observes gluing apparatus that applies continuous melted glue strings across tops of veneer strips to connect strips, and replaces exhausting glue-string spools. Observes machine operations to detect jamming, and reverses machine as necessary to unclog jams. Records production.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

569.685-026 CORE-LAYING-MACHINE OPERATOR (millwork-plywood)
Tends machine that automatically lays *face sheets, back sheets,* and *core stock* in sequence and spreads glue on core stock to form plywood panels: Starts machine, observes operation, and turns wheels, valves, and dials to adjust and synchronize conveyors, reach and vacuum of mechanical feed arms, tension on glue-spreading rollers, and to regulate flow of glue. Depresses pedal to control conveyor that moves stacked panels to hot-plate presses.
GOE: 06.04.03 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 77

569.685-030 CORK MOLDER (wood prod., nec)
Performs any combination of following duties, as crewmember, to cast and bake ground cork mixture into slabs: Lubricates mold to prevent mixture from adhering to sides, using spray gun or oil-soaked rags. Weighs and dumps specified quantity of mixture into mold, or opens overhead storage outlet to fill mold with mixture. Lifts and places pressure plate on mold and inserts holding pins to secure plate. Moves mold under hydraulic press, using chain hoist. Presses button to lower ram that exerts pressure on plate and compresses mixture to prescribed density and hardness. Releases ram, pulls holding pins from mold, and pries off pressure plate, using pinchbar. Fastens monorail hoist to mold frame and pushes mold into oven. Observes gauges and moves controls to maintain predetermined oven temperature. Removes mold from oven and cast slab from mold, after specified time. May be designated according to specific task performed as Mold Filler (wood prod., nec); Mold Hoister (wood prod., nec); Mold Sprayer (wood prod., nec).
GOE: 06.04.09 STRENGTH: H GED: R2 M2 L1 SVP: 3 DLU: 77

569.685-034 EDGE-GLUE-MACHINE TENDER (millwork-plywood)
Tends machine that automatically presses glue-coated edges of veneer strips together to form continuous sheet and clips sheets to specified widths: Turns dials and pushes levers to adjust tension of pressure rollers and speed of feed belts. Sets trip lever on clipping unit of machine for width of veneer sheets to be produced, using wrench. Depresses pedal and moves lever that controls conveyor and lift platform to position stack of veneer for feeding into machine. Starts machine. Removes veneer strips from stack and feeds them into machine. Observes pressure gauges and gluing process, and readjusts roller tension if necessary. Removes unglued, torn, or otherwise defective strips for reprocessing or disposal.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

569.685-038 EXTRUDER OPERATOR (wood prod., nec)
Tends one or more extruders that form particleboard from wood chips treated with glue: Turns nuts on machine to regulate platens according to thickness specified for boards, using wrenches. Selects ram that corresponds to platen setting and positions ram on machine spindle. Notifies CHIP-MIXING-MACHINE OPERATOR (wood prod., nec) to start flow of charge. Starts ram that forces charge through extruder, forming continuous sheet of particleboard. Alters

space between platens as directed. May be designated according to type of extruder operated as Extruder Operator, Horizontal (wood prod., nec); Extruder Operator, Multiple (wood prod., nec); Extruder Operator, Vertical (wood prod., nec).
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

569.685-042 GLUE SPREADER, VENEER (millwork-plywood; wood prod., nec) alternate titles: core feeder; glue-spreader operator; veneer gluer

Tends machine that spreads glue on both sides of precut veneer stock (*crossboards* or core boards) or particleboard before assembly into plywood or veneered panels: Turns valve on glue hopper above machine to fill troughs formed between application rollers and doctor rolls. Turns handwheel, crank, or tension screws to space rollers according to thickness of stock. Starts machine, scans stock to detect knotholes or large splits, and discards culls in handcart. Feeds stock between rollers. Observes level of glue in troughs between doctor rolls and rollers, and turns valve to replenish glue when level is low. Periodically feels discharged stock to determine if glue is being spread evenly and if glue coating is sufficient to bond stock in panels, and adjusts rollers to correct defective gluing. Cleans glue from rollers, using hot water or alcohol and brush. May lubricate machine. May mix glue.
GOE: 06.04.03 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 81

569.685-046 GLUING-MACHINE OPERATOR (woodworking)

Tends machine that utilizes pressure and heat to bond preglued boards into panels of specified size: Regulates speed and pressure of rollers and temperature of heating unit, according to type of glue, thickness of wood parts, and density and moisture content of wood. Starts machine, and places preglued boards of combined specified length edge to edge on feed rolls or chain that carry them through machine and curing tunnel. May tend machine with saw attachment that bonds preglued boards into continuous panel and automatically cuts panel into specified lengths and be designated Plycor Operator (woodworking).
GOE: 06.04.03 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 78

569.685-050 GLUING-MACHINE OPERATOR, ELECTRONIC (woodworking) alternate titles: electronic gluer; hot press operator; panel gluer

Tends machine that utilizes pressure and electronic energy to bond preglued wooden parts together: Turns knobs to regulate clamp pressure, intensity of electron emission, and timer according to type of glue, thickness of wooden parts, and density of wood. Adjusts clamps according to size of assemblies to be glued, using wrenches and hammer. Assembles and positions preglued parts in clamp bed of machine, and turns air-pressure valve and presses button to actuate clamp and release flow of electrons through glue joints. Removes assembly from machine, and examines assembly for defective gluing. May apply glue to parts with brush or by running surface of part over wheel set in pot of liquid glue. May mix glue.
GOE: 06.04.03 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 78

569.685-054 HOT-PLATE-PLYWOOD-PRESS OPERATOR (millwork-plywood) alternate titles: hot-plate-press operator; veneer-press operator

Tends hot-plate press that bonds glue-coated veneer sheets together to form plywood: Turns knobs on control panel to set temperature and pressure of press. Turns valves to release steam to heat plates. Lifts and loads veneer panels (assembled glue-coated veneer sheets) and caul boards into press, working in teamwork with LABORER, HOT-PLATE PLYWOOD PRESS (millwork-plywood). Presses button controls to bring plates of press together and subject veneer panels to temperature and pressure that glue and convert them into plywood. Cleans glue from caul boards, using scraper. May rub edges of plates with paraffin to facilitate loading and unloading. May tally number, dimensions, and core thickness of pressed panels on daily pressing report.
GOE: 06.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

569.685-058 HYDRAULIC-PRESS OPERATOR (millwork-plywood) alternate titles: cold-press operator

Tends hydraulic press that bands together layers of veneer sheets and core stock to form plywood or veneered products, such as tabletops and doors: Places clamp rails and backing board in press. Loads stack of assembled layers from conveyor or handtruck into press by hand or by use of hoist. Places backing board and clamp rails on top of stack. Turns handwheels to set pressure specified for material and starts press. Attaches retainer rods to top and bottom clamp rails and tightens turnbuckles on rods to maintain pressure on stack after removal from press. Releases press and removes clamped stack from press bed for drying.
GOE: 06.04.03 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

569.685-062 SPLICER OPERATOR (millwork-plywood) alternate titles: veneer splicer

Tends splicing machine that bonds preglued edges of veneer strips together to form larger sheets: Turns dial or handwheel of machine to regulate heat, pressure of rollers, and conveyor speed according to thickness of veneer sheets to be processed. Positions two veneer strips side by side against center guide of machine and feeds them into machine that automatically forces glued edges together and cures edges to bond sheets. Observes bonded sheets to detect defects, such as overlapping or unbonded edges. Adjusts heat, pressure, and speed of machine, or cleans heating bar with scraping tool to correct malfunctions. Verifies dimensions of veneer sheets against work order, using tape measure. May record footage spliced as indicated by meter on machine. May spray glue on edges of veneer strips prior to bonding, using spray gun. May tend splicing machine that automatically applies glue to edges prior to bonding and be designated Edge Gluer (millwork-plywood).
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 78

569.685-066 STACKER, MACHINE (woodworking) alternate titles: lumber-piler operator; stacker; wood piler

Tends machine that stacks or unstacks lumber to load or unload kiln car to level of lumber table: Starts conveyor that carries lumber onto kiln car in layers, drops stickers between layers, or removes dried lumber from car. Straightens lumber on conveyor for even flow onto stack, using handhook. May record data such as thickness, grade, length, and quantity of lumber stacked. May drive kiln car to transfer lumber car to kiln or storage [KILN-TRANSFER OPERATOR (woodworking) 569.683-010]. May tend machine that stacks inspected boards in layers of specified width prior to further processing and be designated Stacker (furniture). When concerned only with unloading kiln cars, may be designated Unstacker (woodworking).
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 78

569.685-070 VARNISHER (fabrication, nec)

Applies varnish to stems and bowls of corncob pipes by any combination of following methods: (1) Places pipe bowls on revolving disks of plate that carries them past nozzle of spray gun. (2) Places parts of pipe in tumbling cylinder containing varnish and presses button to start cylinder, coating parts with varnish. (3) Places bowl of pipe on revolving spindle and holds brush against bowl.
GOE: 06.04.21 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

569.685-074 VENEER TAPER (millwork-plywood) alternate titles: veneer joiner; veneer-taping-machine operator

Tends machine that joins sheets of veneer with gummed-paper tape: Places pieces of matched veneer or veneer strips edge to edge between machine rollers. Lowers feed rollers that draw veneer through machine and apply moistened tape. Raises feed roller when taping is complete. Replaces reels of tape on spindle and threads tape through machine. Pours water into dispenser. Moves lever or turns handwheel to regulate speed of machine or to set pressure of feed roller according to thickness of veneer. May tend machine that joins sheets of veneer with gummed thread rather than tape.
GOE: 06.04.03 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

569.685-078 WOOD-FUEL PELLETIZER (fabrication, nec)

Tends machines and equipment that automatically extrude, pelletize, and cool mixture of ground wood and bark to form wood-fuel pellets: Moves controls to adjust temperature and steam pressure gauges, according to type of wood and bark mixture being processed, regulate conveyor speed, and start machine. Periodically tests samples of extruded mixture for moisture content, using electronic moisture tester, and readjusts steam pressure gauges as required. Listens to machines and equipment and monitors control panel to detect malfunctions and to ensure production flow. Clears jams, using paddle. Removes and replaces worn dies, using wrench and screwdriver. Washes, cleans, lubricates, and greases machines and equipment, using water, detergent, brushes, rags, oilcan, and grease gun. Records control panel readings in operating log.
GOE: 06.04.03 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 86

569.686-010 BACK FEEDER, PLYWOOD LAYUP LINE (millwork-plywood)

Feeds veneer *back sheets* onto conveyor of plywood-layup line machine for subsequent assembly into plywood panels: Pushes button to activate infeed conveyor that conveys stack of back sheets to worker. Removes back sheet from stack and places sheet on conveyor of plywood-layup line machine behind glue-coated *face sheet*, *crossbands*, and *core stock* placed by CORE FEEDERS, PLYWOOD LAYUP LINE (millwork-plywood), for subsequent assembly into plywood panel by CORE LAYERS, PLYWOOD LAYUP LINE (millwork-plywood). Presses counter control pedal to tally each back sheet placed on conveyor.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

569.686-014 CORE LAYER, PLYWOOD LAYUP LINE (millwork-plywood)

Removes glue-coated veneer sheets from conveyor of plywood-layup line machine and stacks them in sequence to form plywood panels, working as member of team: Presses pedals to activate chain conveyor that conveys stack of caul boards to discharge end of machine and to raise lift table to working level to facilitate assembly of plywood panels. Places caul board on lift table to protect surface of *face sheet* in bottom panel. Places preglued face sheets, *crossbands, core stock, and back sheets* in sequence on lift table as they are discharged from machine to form plywood panels. Discards detected unusable sheets, such as broken or split sheets, to prevent assembly of defective panels. Presses pedal and button to lower completed stack of plywood panels to chain conveyor and to convey stack to hot-plate plywood press.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

569.686-018 CORK-PRESSING-MACHINE OPERATOR (wood prod., nec)

Positions tubes of ground-cork mixture into slots of machine that compresses material into rods. Removes tubes and places tubes in frame. Pushes and pulls

frame down slide conveyor for subsequent baking and slicing of compressed mixture.
GOE: 06.04.09 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

569.686-022 GLUING-MACHINE OFFBEARER (woodworking)
Off bears gluing machine that utilizes pressure and heat to bond preglued woodstock together: Removes glued woodstock emerging from machine and stacks woodstock on handtruck. Stacks defectively glued woodstock on designated conveyor. Stops machine when jams occur in curing tunnel, and removes or assists GLUING-MACHINE OPERATOR (woodworking) in removing jammed stock. Lubricates machine and cleans work area, using grease gun and shovel. Conveys wood chips and sawdust to boilerroom, using wheelbarrow. May record production. May signal GLUING-MACHINE OPERATOR (woodworking) to start machine.
GOE: 06.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

569.686-026 LABORER, HOT-PLATE PLYWOOD PRESS (millwork-plywood)
Performs any combination of following tasks as member of team involved in loading and unloading hot-plate plywood press that bonds glue-coated veneer sheets together to form plywood: Interstacks veneer panels (assembled glue-coated veneer sheets) and caul boards on press dolly and pushes dolly to press. Inserts assembled cauls between press plates and pushes them into press. Pushes cauls from press, using stick, and stacks finished plywood panels and caul boards on separate dollies. Examines pressed panels for surface defects and discards defective panels. Conveys panels to storage area and caul boards to and from cooling area, using handtruck. May be designated according to working position as Hot-Plate Plywood-Press Feeder (millwork-plywood); Hot-Plate Plywood-Press Offbearer (millwork-plywood).
GOE: 06.04.03 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 79

569.686-030 PAD-MACHINE OFFBEARER (saw. & plan.)
Off bears machine that compresses and wraps excelsior into pads used in packing furniture and other products: Removes paper-covered excelsior pads from conveyor and inspects them for torn wrapping and completeness of filling. Tears open defective pads and dumps excelsior on salvage pile. Folds moistened gummed-paper tape over opened ends of acceptable pads to complete sealing of pads and stacks acceptable pads on floor.
GOE: 06.04.09 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

569.686-034 RETORT UNLOADER (chemical) alternate titles: charcoal unloader; kiln unloader; retort forker
Unloads retort or kiln after destructive distillation processing or making of charcoal: Pushes loaded cars out of retort or kiln. Rakes charcoal from racks or cars and discards unburned wood. Starts conveyor and shovels charcoal onto conveyor that transfers it into trucks. May drive truck to and from retort or kiln and dumping ramp where charcoal is dumped and bagged.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

569.686-038 GLUING-MACHINE FEEDER (woodworking)
Feeds woodstock onto conveyorized glue wheel that applies glue to edges of woodstock preparatory to bonding: Locates specified woodstock in storage area and conveys woodstock to work station. Lifts woodstock pieces from stock in prescribed sequence, following assembly sequence reference marks on woodstock pieces, and loads woodstock onto conveyor that conveys woodstock across glue-applying mechanism. Places final piece in assembly sequence at specified angle on conveyor or marks piece, using pencil, to signal GLUING-MACHINE OPERATOR, ELECTRONIC (woodworking) 569.685-050 or worker bonding woodstock by other methods of end of sequence.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

569.686-042 LAMINATING-MACHINE FEEDER (wood prod., nec) alternate titles: board handler
Feeds laminating machine that bonds coating material, such as paper or plastic to hardboard panels: Pulls panel from supply pallet, centers panel on machine feed conveyor, and pushes panel between power rollers of machine that automatically applies coating to panel, bonds material to panel with glue, heat, and pressure, and discharges laminated panel onto off-feed conveyor.
GOE: 06.04.09 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 86

569.686-046 LAMINATING-MACHINE OFFBEARER (wood prod., nec) alternate titles: laminator grader
Off bears laminating machine and inspects and sorts processed products: Depresses buttons to activate off bearing conveyors and to start action of panel edge sanders along sides of conveyors. Turns dial to synchronize off bearing conveyor speed with off bearing rate of laminating machine. Observes laminated panels to detect processing flaws, such as loose corners, damaged edges, or discolorations. Grades panels according to prescribed standards, and routes graded panels onto designated conveyors for delivery to assigned storage areas.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 86

569.686-050 PRESS BREAKER (wood prod., nec)
Unloads pressed hardboard panels from hardboard pressing machine: Pushes buttons that activate elevator platform to facilitate worker access to tiers of hardboard pressing machine. Inspects wood fiber mats to ensure specified position in pressing machine. Breaks seals of pressed hardboard from pressing plates, using pry bar, and activates drive chain motors to eject hardboard panels from press into tiers of unloading machine. Activates conveyor to unload hardboard panels onto panel stacker that stands panels on edge in humidifier cars. Removes and weighs randomly selected hardboard panels from conveyor belt, and records weights on tally sheet to facilitate quality control. Replaces weighed panels onto conveyor belt. Pushes loaded humidifier carts into humidifier cabinet.
GOE: 06.04.40 STRENGTH: V GED: R2 M1 L1 SVP: 2 DLU: 86

569.686-054 VENEER-TAPING-MACHINE OFFBEARER (millwork-plywood) alternate titles: tape machine tailer
Off bears veneer taping machine: Lifts taped face veneer sheets from discharge bed of veneer taping machine and stacks sheets on storage cart. Hands veneer sheets that are not taped according to specifications to VENEER TAPER (millwork-plywood) 569.685-074 for retaping. Pushes loaded cart from machine to specified processing area.
GOE: 06.04.03 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

569.687-010 CLAMP REMOVER (millwork-plywood)
Detaches clamping devices and stacks glued veneer panels after removal from cold press, working as member of team: Loosens turn buckles with metal rod and removes retaining rod attached to rails at top and bottom of stack. Removes top rail from stack and stacks veneer panels and caul boards on separate handtrucks. Pushes handtruck with veneer panels to drying oven or storage area for drying. May separate layers of veneer panels with spacer sticks. May clean glue from caul boards, using scraper. May be known according to specific task performed as Veneer Stacker (millwork-plywood).
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

569.687-014 LOG WASHER (saw. & plan.)
Washes loose dirt, gravel, or stones from bark of logs being drawn up slip or chute from pond to deck, using high-pressure waterhose (in many mills this work is accomplished by mechanical sprayers).
GOE: 06.04.39 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

569.687-018 SCREEN CLEANER (wood prod., nec)
Washes screens and cauls of press machine with caustic soda and water, using brush and hose. Moves parts to and from press machine, using handtruck.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

569.687-022 SORTER I (wood prod., nec)
Sorts and stacks cork sheets, used for making cork gaskets, according to size. Examines sheets and rejects those with defects, such as cracks or holes.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

569.687-026 WOOD HACKER (fabrication, nec; paper & pulp) alternate titles: block chopper, hand; block hacker; spudder; wood barker
Cuts bark spots, knots, and diseased and decayed portions from logs or wood blocks, using spudder, ax, hatchet, or portable power saw, to prepare wood for further processing. Turns logs and blocks with peavey to expose underside. May straighten logs on conveyor, using pike pole. May load cleaned blocks on conveyors.
GOE: 06.04.25 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

569.687-030 QUALITY CONTROL INSPECTOR (furniture; millwork-plywood)
Inspects veneer during processing phases to verify that veneer meets specified quality standards: Reads work cards at processing stations to determine specifications for veneer being processed. Observes clipping and splicing operations and examines veneer sheets to ensure veneer is processed according to company standards. Inspects random sheets of spliced veneer to detect gluing defects and to ensure veneer grain is matched in prescribed manner. Measures length and width of veneer for conformance to specifications, using tape ruler. Tests moisture content of veneer according to wood type, using portable moisture meter. Discards veneer that deviates from specified standards. Observes activities of VENEER GRADER (millwork-plywood) 569.687-034 to ensure that grading of veneer conforms to quality standards. Records inspection data and submits reports to designated personnel.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 86

569.687-034 VENEER GRADER (millwork-plywood)
Inspects sheets or strips of veneer for color, texture of grain, and knots, wormholes, cracks, or unsanded spots. Marks grade on individual sheets on conveyor or on top sheet of stack, according to prescribed standard. Discards unacceptable panels. Records number of sheets inspected by grade on tally sheet. When examining and grading plywood, is known as Plywood-Stock Grader (millwork-plywood).
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 78

57 OCCUPATIONS IN PROCESSING OF STONE, CLAY, GLASS, AND RELATED PRODUCTS

This division includes occupations concerned with preparing for market raw materials, such as stone, clay, glass, and sand. Includes abrasive, asbestos, and miscellaneous nonmetallic mineral materials; forming such materials and adjuncts in their plastic or moldable states into stock shapes, parts, and other products; and impregnating, coating, heat treating, and thermal finishing such materials and formed products. Includes fiberglass.

570 CRUSHING, GRINDING, AND MIXING OCCUPATIONS

This group includes occupations concerned with reducing materials to smaller particles by means of compression, cutting, smashing, and combining or mingling materials to produce a single, blended mass. Includes the stirring of molten glass.

570.130-010 SUPERVISOR, CLAY PREPARATION (pottery & porc.)
Supervises and coordinates activities of workers engaged in production of casting slip and plastic clay used in forming pottery and porcelain ware: Gives workers directions in blending, mixing, filtering, and pugging clay. Inspects slip and plastic clay for specified composition, weight, specific gravity, and plasticity. Sets up and adjusts mixing and screen machines, filter-presses, pug mills, pumps, and storage tanks. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

570.132-010 CONCRETE-BATCHING AND MIXING-PLANT SUPERVISOR (construction) alternate titles: batch-plant supervisor
Supervises and coordinates activities of workers engaged in transporting and mixing ingredients to make concrete: Directs workers engaged in transferring sand and gravel aggregates by crane or other conveyor from barges and trucks to storage piles or bins. Reads specification sheets to determine sizes of aggregates and proportions of cement and water required for batch of concrete. Signals workers to charge mixing drums with specified amounts of ingredients and discharge mixed concrete into truck or other conveyor. May supervise workers engaged in assembling and dismantling plant at construction site. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.11.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

570.132-014 MILLING SUPERVISOR (brick & tile)
Supervises and coordinates activities of workers engaged in operating machines to grind, crush, mix, and blend materials to make batches of clay for pressing into clay products. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

570.132-018 WASHING-AND-SCREENING PLANT SUPERVISOR (construction)
Supervises and coordinates activities of workers engaged in washing, crushing, and screening sand and gravel to produce aggregate of specified size for use as ingredients in making concrete. Directs workers in adjusting equipment and replacing screens to regulate size of aggregate. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

570.132-022 SUPERVISOR (brick & tile)
Supervises and coordinates activities of workers engaged in operation of equipment to scrape clay and shale from open pits: Assigns duties and demonstrates methods of work and use of equipment to maintain production schedule and ensure safe operations. Determines needed repairs of pit roadways and of equipment used to scrape, load, and haul clay and shale. May supervise and coordinate activities of workers engaged in crushing, grinding, and screening clay and shale [MILLING SUPERVISOR (brick & tile) 570.132-014]. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 86

570.137-010 SUPERVISOR (mine & quarry)
Supervises and coordinates activities of workers engaged in grinding, drying, mixing, and processing talc and borate: Reviews work orders, invoices, and maintenance schedules to plan production schedules. Examines processed materials to determine if specifications are met. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

570.362-010 BULK-STATION OPERATOR (petrol. & gas)
Controls conveyors and blending equipment to mix materials according to specification for use in cementing oil and gas wells: Operates electric-powered winch to spot railroad cars over underground hoppers. Breaks seal and opens bottom-dump doors on car with prybar to unload cement and other materials in hopper. Presses button to start conveyor which transfers materials to storage bins. Pulls levers and presses switches to start and stop conveyors and blending equipment and to open and close discharge gates on storage bins. Empties sacks of additive chemicals into blender hoppers to prepare dry cement mixtures, following formulas. Prepares delivery tickets (call sheets) and weighs trucks and materials as loaded. Records quantities of materials received and issued on inventory control records. Estimates materials in bulk storage bins periodically to verify inventory records. Requisitions materials to replenish stocks.
GOE: 06.04.12 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

570.382-010 MILL OPERATOR (brick & tile; pottery & porc.) alternate titles: clay temperer
Operates crushers, mixers, and blenders to grind, mix, and temper clay for use in molding ceramics products: Drives liftscoop tractor to convey clay from storage piles or bins and dumps material on crusher pit grates. Breaks up clay with bar or sledge. Starts crusher, conveyors, elevator, and vibrating screens to grind raw materials to specified size and to transport ground materials to storage bins. Examines screens and clears blockages, using wire brush. Weighs and dumps raw materials into mixing machine, following formula. Starts mixer and turns valve to feed water into mixing machine. Inserts instrument into mixture to measure water content. Discharges mixture onto conveyors leading to blending machine. Starts blending machine that mulls mixture into tempered clay. May be designated according to machine operated as Blender Operator (brick & tile); Crusher Operator (brick & tile); Mixer Operator (brick & tile); or according to kind of materials processed as Clay-Dry-Press-Mixer Operator (brick & tile); Silica-Mixer Operator (brick & tile).
GOE: 06.02.17 STRENGTH: M GED: R3 M2 L1 SVP: 5 DLU: 77

570.382-014 PLASTER MIXER, MACHINE (concrete prod.)
Controls equipment to weigh and mix gypsum with specified proportions of fiber, retarder, perlite, and other additives to make plaster: Starts mixing machine and sets weigh hopper. Engages screw feeder that feeds specified amount of gypsum from storage bin into weigh hopper. Weighs additives according to specifications and dumps them into hopper. Opens gate of hopper to drop ingredients into mixer. Opens mixer gate after specified time to discharge mixed plaster product into packer hopper. May fill bags with mixed plaster.
GOE: 06.02.18 STRENGTH: H GED: R3 M2 L1 SVP: 5 DLU: 77

570.382-018 SUPPLY CONTROLLER (concrete prod.)
Controls grinders, mixers, and conveyors to prepare ingredients for plaster wallboard and feed prepared ingredients into hopper of board machine: Transfers gypsum, flour, potash, soap, lime, and other materials from storage area to supply tanks, using handtruck or powered truck or conveyor. Dumps ingredients into agitator tanks according to formula to mix edge glue and soap solution. Feeds materials, in specified proportions, into machine hopper, by pump line and conveyor. Reads tank dials and flowmeters to determine reserve of materials in tanks and rate of flow of materials into machine hopper. Regulates feeders and pumps, using handtools, to ensure continuous supply of ingredients into hopper. May operate hydropulper to grind and mix paper into pulp slurry for use as additive.
GOE: 06.02.18 STRENGTH: H GED: R4 M2 L2 SVP: 4 DLU: 77

570.482-010 CLAY MAKER (brick & tile; pottery & porc.) alternate titles: blunger-machine operator; clay mixer; clay washer; slip maker; slip mixer; wet mixer
Operates blunger (mixing machine) and auxiliary equipment to blend and mix clay into semiliquid for use in casting ceramic ware: Dumps sacks of clay into conveyor to charge blunger. Turns valve to admit water into blunger. Starts blunger that mixes clay into semiliquid. Stops blunger and places hydrometer in semiliquid to determine specific gravity. Adds water or clay to obtain mixture of specific gravity. Regulates valves to discharge mixture over screens, agitators, and magnets to remove iron or steel in mixture. Removes excess water from mixture with vacuum filter. Washes screens and magnets to remove foreign particles and sludge, using hose. May mix clays according to formula [BATCH MIXER (brick & tile)].
GOE: 06.04.17 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 77

570.484-010 MIXER, DIAMOND POWDER (nonmet. min.)
Combines resin, diamond, and silicone carbide powders to form mixture for use in molding diamond-abrasive grinding wheels, following formulas and using scraper, spatula, plate glass, and gram weight balance: Selects mixing formula from book according to type of wheel to be molded. Weighs ingredients separately on gram weight balance, and dumps ingredients onto plate glass. Mixes powders on plate glass, and dumps mixture into jar, using scraper and spatula. Caps jar, using rolling machine. Removes jar after specified time from machine. Labels jar to identify mixture with type of wheel to be molded.
GOE: 06.04.34 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

570.485-010 ABRASIVE MIXER (nonmet. min.) alternate titles: mixer operator
Tends machine that mixes abrasive compounds for use in making polishing and buffing wheels, and hones: Calculates amount of grit, clay, and adhesive required according to formulas. Weighs out ingredients, dumps ingredients into mixing machine, and starts mixing machine. Feels mixture and adds water and resins until specified consistency is attained. Scoops mixed compound into oscillating sieve to screen out lumps and oversized granules. Dumps compound into barrels for further processing. Records quantities of ingredients used in each mix.
GOE: 06.04.19 STRENGTH: H GED: R3 M2 L1 SVP: 4 DLU: 77

570.665-010 DRY-PAN OPERATOR (brick & tile) alternate titles: dry-mill operator
Tends series of dry-pans, screens, and conveyors that grind, sift, and convey dry clay to storage tanks: Signals OVERHEAD CRANE OPERATOR (any industry) 921.663-010 to load clay into hoppers of dry-pans. Turns valves to feed water into pans. Starts equipment that grinds and sifts clay. Starts and regulates speed of conveyors and elevators to transport clay to storage tanks. Removes rocks or other obstructions from dry-pans and screens, using pry bars and wire brushes. Breaks up lumps of clay, using sledgehammer. Observes panel lights for indications of equipment failures. Adjusts, tightens, or replaces wire screens using handtools.
GOE: 06.04.17 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 77

570.682-010 ABRASIVE GRADER (optical goods)
Operates pebble mill to grind emery, rouge, and other abrasives and separates them according to fineness by water suspension method: Examines abrasive under microscope to determine grinding time required, and grinds abrasive in pebble mill. Turns valve to allow ground particles and water to flow into agitator tank. Presses button to start agitator which stirs particles into suspension. Stops machine and determines by microscopic examination when particles of particular grade have settled below tank outlet. Opens stopcock to allow particles remaining above the outlet to descend into vat. Repeats separation process for other grades, regrinding as required.
GOE: 06.02.09 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

570.682-014 PLANT OPERATOR (concrete prod.; construction)
Operates concrete, asphalt, or sand and gravel plant to batch, crush, or segregate materials used in construction: Moves controls on panelboard or control board to heat, dry, and mix ingredients, such as asphalt, sand, stone, and naphtha to produce asphalt paving materials; to weigh and mix aggregate, cement, and water to produce concrete; or to control feeding, crushing, and sifting machinery in sand and gravel plant. Observes gauges, dials, and operation of machinery to ensure conformance to processing specifications. May repair machinery, using handtools, power tools, and welding equipment. May be designated according to type of plant operated as Asphalt-Plant Operator (construction); Concrete-Batch-Plant Operator (concrete prod.; construction); Sand-And-Gravel-Plant Operator (construction); or according to machine function as Crusher Operator (concrete prod.; construction).
GOE: 05.11.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 79

570.682-018 SAND MIXER, MACHINE (foundry) alternate titles: sand conditioner, machine; sand mill operator; sand-system operator
Operates machine to mix or recondition molding sand: Weighs out specified amounts of ingredients, such as sand, sea coal, and bonding agents, and shovels them into machine or automatic hopper. Sets dials for specified amounts of water, core oil, and other ingredients that are automatically measured and fed into machine. Turns dials to time mixing cycle of machine. Removes sample of sand and feels sand for consistency. Adjusts controls and adds ingredients to vary mixture according to sampling. May be designated according to purpose for which sand is to be used as Sand-Mill Operator, Core Sand (foundry); Sand-Mill Operator, Facing Sand (foundry); Sand-Mill Operator, Molding-Sand (foundry).
GOE: 06.02.10 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

570.683-010 DRY-PAN CHARGER (brick & tile) alternate titles: dry-pan feeder
Transports, mixes, and charges specified quantities of clay into dry-pan hoppers, using overhead crane, equipped with clamshell, or lift-scoop tractor: Reads production schedule to determine proportions of various clays needed for scheduled products. Transports specified amounts of clays from storage piles to mixing area and mixes clay by filling clamshell or scoop with clay and dumping clay back on pile. Transports mixed clay to dry-pan and charges it into hoppers. Lubricates equipment, using grease gun and oilcan. May press switches or buttons and turn dials and knobs to start and stop equipment used to pulverize, screen, and convey materials.
GOE: 06.04.40 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

570.683-014 SAND-CUTTER OPERATOR (foundry) alternate titles: sand-cutting-machine operator; sand-mixer operator
Controls machine equipped with cutting disks to mix binder and sand, and aerate sand used in construction of foundry molds and cores: Sprays water over sand on foundry floor and adds binder (clay, flour, or molasses) to sand. Starts machine and steers it back and forth through pile to mix water, binder, and sand. Rubs sand through fingers to test cohesiveness of mixture and adds water or binder to sand to obtain mixture of desired consistency.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

570.685-010 AUXILIARY-EQUIPMENT TENDER (cement) alternate titles: cement mixer; slip mixer; slurry blender; slurry-tank tender
Tends auxiliary equipment such as pumps, motors, and conveyors to supply materials and power to slurry tanks and other equipment to mix cement slurry for kilns: Receives signal from ROTARY-KILN OPERATOR (cement; chemical; mine & quarry), and starts pumps and conveyors to feed raw materials into kiln. Opens valves to fill slurry tanks with specified amounts of water and raw materials or to correct slurry mixture. Starts tank agitators that mix slurry. Greases and oils equipment. May be designated according to equipment tended as Kiln Feeder (cement); Mixer Tender (cement).
GOE: 06.04.17 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

570.685-014 CLAY MIXER (brick & tile)
Tends machines and equipment that mix materials, such as clay, iron oxide, magnesium, and water according to formula for use in making brick or ceramic floor tile: Gathers materials specified by work order from storage area and transports materials to scales, using handtruck or industrial truck. Weighs materials, and records weight on batch card. Dumps materials into mixer, using hoist, or shovels materials into mixer. Turns valves to admit specified amount of water into mixer and flips switch or presses button to start mixer. Presses button to discharge mixture from machine or shovels mixture into container.
GOE: 06.04.17 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 79

570.685-018 CRUSHER OPERATOR (concrete prod.)
Tends conveyors and grinders that crush raw gypsum into specified pebble size: Opens storage gates and starts grinders, feeders, and belt conveyors. Observes flow of materials on conveyors. Cleans carriers and removes wedged rock from conveyors and clogged chutes, using scraper and poker. Opens slide gates to allow flow of pebbles into storage bins or trucks. May fill supply chutes with gypsum rock, using tractor equipped with scoop.
GOE: 06.04.08 STRENGTH: H GED: R3 M1 L1 SVP: 2 DLU: 81

570.685-022 CRUSHER TENDER (any industry) alternate titles: crusher operator; primary-crusher operator; roll attendant
Tends any of several types of crushers that size materials, such as coal, rock, salt, clay and shale, or ore for industrial use or for further processing: Moves levers to regulate flow of materials to and from conveyors, chutes, pumps, or storage bins. Starts crusher, and prods, breaks, or discards lumps to prevent plugging, using bar, sledgehammer, or jackhammer. Adjusts equipment, such as screens, conveyors, and fans, to control or vary size or grade of product, or to maintain uniform flow of materials. Cleans and lubricates equipment. May keep record of materials processed.
GOE: 06.04.08 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 78

570.685-026 CULLET CRUSHER-AND-WASHER (glass mfg.) alternate titles: crusher operator; glass crusher; glass pulverizer equipment operator
Tends crushing machine that crushes and washes cullet (waste glass) for use in manufacturing glass: Starts conveyor that transfers cullet from storage to crushing machine. Starts machine and observes its operation to determine whether cullet is ground to specified fineness. Starts water spray to wash crushed cullet. Inspects crushed cullet for foreign matter such as stones, bottle caps and neck rings. Directs flow of crushed cullet to specified bins by color and type of glass. May transfer cullet to and from crusher, using industrial truck. Workers who unload bulk ingredients from railcars and truck and tend crushers. May be designated Batch Unloader (glass mfg.).
GOE: 06.04.08 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

570.685-030 HAMMER-MILL OPERATOR (nonmet. min.)
Tends hammer mill that breaks slags, slate, and similar materials into fine pieces: Starts machine and watches rate of feeding into hopper from conveyor or moves gate lever to allow materials to drop into hopper from chute. Oils and cleans machine.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

570.685-034 LIME SLAKER (concrete prod.) alternate titles: lime mixer; lime-plant operator; milk-of-lime slaker
Tends rotary slaker or open batch tank that mixes lime and water to make milk of lime (slaked lime) by either of following methods: (1) Regulates automatic feed of lime and water into rotary slaker to obtain continuous production of milk of lime. Tests concentration with hydrometer. (2) Weighs lime and dumps lime into tank. Adds water and starts agitators to dissolve lime. Tests specific gravity of mixture with hydrometer and adds lime or water to obtain specified concentration. Opens drain valve or starts pump to transfer mixture through mesh screens or settling tank into storage tank. May separate coarse and fine lime particles in classifier. May crush or grind limestone in crushing machine or ball mill. May collect samples of lime or waste material for assaying. May test lime solution by titration to determine its concentration. May heat water with steam coils to speed mixing process.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L1 SVP: 4 DLU: 77

570.685-038 MILLER (mine & quarry) alternate titles: crusher, wet-ground mica
Tends one or more grinding mills to pulverize mica: Fills hopper of mill with mica, using tractor equipped with scoop. Opens hopper gate to start flow of mica into mill and turns valve to admit specified amount of water into mill. Starts mill to grind mica for specified length of time. Feels sample of mixture and adds water to mill to maintain slurry-like consistency. Circulates water through mill at end of grinding cycle to flush ground mica from mill, through intermediate tank, and into settling tank. Shovels oversize mica from bottom of intermediate tank back into mill.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

570.685-042 MILLER I (chemical)
Tends mill that pulverizes phosphate rock used in making fertilizer: Starts conveyor that feeds rock to mill. Moves lever of feedgate to increase or decrease amount of rock fed to mill, according to grinding sound or ammeter readings. Applies preservative to belts and lubricates machine.
GOE: 06.04.11 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

570.685-046 MILLER (cement) alternate titles: grinder operator
Tends machines that crush, mix, or pulverize materials, such as limestone, shale, oyster shells, clay, iron ore, silica, gypsum, and cement clinkers, used in making cement: Starts mill and conveyors. Observes conveyor system to ensure continuous flow of material. Stops conveyor and removes clogged material, using bar. Opens chute over conveyor to add materials, such as iron, silica, or gypsum, according to specifications. Observes operation of auxiliary equipment, such as cement pumps, air or screen separators, air slides, cement coolers, and dust collectors. Turns valves to regulate water, air, and oil lines on machine, according to laboratory specifications. May regulate feeder mechanism on machines not equipped with automatic regulators. May add moisture to ma-

terials to facilitate flow into machine. May be designated according to type of mill tended as Ball-Mill Operator (cement); Finish-Mill Operator (cement); Hammer-Mill Operator (cement); Miller, Rod-Mill (cement); Pug-Mill Operator (cement); Raw-Finish-Mill Operator (cement); Tube-Mill Operator (cement); Vertical-Mill Operator (cement).
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 78

570.685-050 MIXER (nonmet. min.) alternate titles: feeder

Tends mixing machine that blends asbestos fibers and ingredients, such as ground marble, water, cement, and oil to form compounds used in making asbestos products, such as pipe, shingles, and brake linings: Dumps or pours ingredients into mixer in specified proportions. Starts mixer and allows ingredients to mix for specified time. Stops mixer and moves control or turns valve to dump or transfer mixture into storage container. Flushes water through mixer to clean mixing equipment. Records production data.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

570.685-054 MIXER (glass mfg.) alternate titles: batch mixer; batch-plant operator; mix-house operator

Tends batch-mixing equipment that blends raw ingredients, such as sand, soda ash, cullet and others for use in making glass or fiberglass yarn, by one of following methods: (1) Weighs specified amounts of ingredients on scale. Dumps ingredients into mixing machine and starts machine to blend ingredients. Pulls lever to unload mass into batch wagon for transport to small-batch, pot furnaces. (2) Monitors and regulates automatic mixing and feeding equipment that supplies blended ingredients to continuous-operation furnace. Sets controls on instrument panel regulating equipment which automatically discharges ingredients onto scales and weighs and blends ingredients in specified ratios. Pushes button to start discharging, weighing, mixing, and feeding equipment. Observes control panel instruments to monitor operations and manually overrides controls in case of malfunction. May weigh trace elements on balance scale, and add them to batch mix. May record batch number, mixer, and other production data. May drive forklift to transport containers of ingredients.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

570.685-058 MIXER OPERATOR (concrete prod.)

Tends machine that mixes lime with materials, such as hair and sand, to make plaster and mortar: Starts mixer and loads specified amounts of materials into drum. Pulls lever to dump mixed contents into chute. May weigh materials to be mixed.
GOE: 06.04.11 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

570.685-062 MIXER TENDER, BOARD (concrete prod.)

Tends equipment that mixes ingredients to produce slurry (plaster mix) and feeds slurry into rollers for pressing into wallboard or lath: Regulates flow of stucco (dry plaster mix), water, and soap solution into mixing machine in specified proportions. Adjusts glue feed for sealing board edges, using handtools. Observes flow of mix onto wallboard paper and removes lumps from mix, using putty knife. Observes scoring and folding of paper for defects and notifies KNIFE OPERATOR (concrete prod.) of defects found. Tests slurry samples for density, using measuring cup and scale. Inserts weighted needle into slurry and times needle with stopwatch as it settles into slurry to determine setting time of slurry.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

570.685-066 MOLDING-MACHINE TENDER (pen & pencil) alternate titles: mixing-and-molding-machine operator

Tends machine that mixes modeling clay ingredients and molds clay for packaging: Fills hopper of machine with modeling compounds and color pigments, according to formula. Moves lever or depresses pedal to start machine that grinds and mixes ingredients. Turns valve to admit mixed clay ingredients into unit of machine that molds clay for packaging.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

570.685-070 MUD-MIXER OPERATOR (smelt. & refin.; steel & rel.) alternate titles: mixer operator; mud grinder; mud-mill operator

Tends mixer that makes lute used for sealing oven doors or tap holes in furnaces: Shovels specified amounts of materials, such as sand and clay, into mixing pan. Turns valve to add water, starts machine, and mixes materials with paddle as pan rotates to obtain specified consistency. Shovels lute into transfer truck. May be designated according to material mixed as Adobe-Ball Mixer (smelt. & refin.); Clay Mixer (steel & rel.); or machine used as Wet-Pan Mixer (smelt. & refin.; steel & rel.).
GOE: 06.04.17 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

570.685-074 PUG-MILL-OPERATOR HELPER (brick & tile; pottery & porc.) alternate titles: pugger helper

Tends mixing chamber that mixes clay and water to make pugged clay: Loads sacks and cakes of clay from storage area onto truck and pushes truck to pug mill. Dumps clay into mixing chamber of mill. Turns valves to regulate flow of water into mixing chamber. Stacks rolls of pugged clay on truck. May wrap pugged clay in burlap to prevent dehydration. May move clay to molding room, using handtruck.
GOE: 06.04.17 STRENGTH: V GED: R2 M1 L1 SVP: 2 DLU: 77

570.685-078 REFRACTORY MIXER (steel & rel.)

Tends equipment that crushes and mixes materials, such as brick, clay, and refractory mud, to form refractory mortar, used to line interior of furnaces: Starts crushing machine and shovels materials into hopper. Shovels crushed n terials into wheelbarrow and dumps materials into hopper of mulling (mixir machine. Turns valve to admit water into mulling machine and starts machi Feels consistency of mixture and adds crushed material or water to obtain m ture of specified consistency. Shovels mixture into mud box for transportati to work area.
GOE: 06.04.08 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

570.685-082 ROUGE MIXER (optical goods)

Tends machine that mixes powdered rouge and water to make polishing pa for lens blanks: Dumps specified amount of rouge into mixing tank and mete prescribed amount of water into tank. Starts agitator and allows ingredients mix for prescribed time. Draws off sample and tests for density, using hydro eter.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

570.685-086 SAGGER PREPARER (pottery & porc.) alternate titl mixer; sagger soak

Tends grinding machine and vat to prepare material to make new sagge Starts grinding machine and loads machine with broken saggers for grindi into grog. Combines grog, domestic clay, and water in vat and permits mater to soak for several days. Tends pug mill to prepare clay for molding in saggers.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

570.685-090 SILICA-SPRAY MIXER (smelt. & refin.) alternate titl slurry-plant operator

Tends machine that grinds and mixes silica and fire clay into slurry f spraying inner surfaces of furnaces: Pulls lever on storage hopper chute to f mobile equipment box with silica, transports load to mixing unit, releases e gate, and dumps silica into ball mill and mixer. Turns valve to saturate mater with water. Starts agitators and shovels fire clay into mixer to mix slurry specified consistency. Opens valve to drain slurry from mixer into storage tank
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

570.685-094 SLATE MIXER (build. mat., nec) alternate titles: blender

Tends machine that mixes multicolored granules of slate for use in surfacin asphalt-coated roofing felt: Adjusts gates on slate chutes, using gauge, and pul levers to deposit specified proportion of granules of each color onto mixer co veyor. Starts mixer that blends granules and activates discharge conveyor lea ing to surfacing machine hopper.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

570.685-098 GLAZE MAKER (brick & tile; pottery & porc.) alternate t tles: frit maker; pulverizer

Tends ball mill that mixes and grinds materials to produce glaze for coatin pottery, tile, and porcelain: Weighs materials, such as calcium, carbonate, cla feldspar, flint, and lead oxide, in specified proportions, using tubs and scal Dumps materials into mill and pushes button to start mill that pulverizes an mixes glaze ingredients. Turns valve to transfer finished glaze from mill ove screens and magnets and into storage jars.
GOE: 06.04.09 STRENGTH: H GED: R3 M2 L1 SVP: 3 DLU: 78

570.686-010 ABRASIVE-GRADER HELPER (optical goods)

Dumps abrasives into pebble mill, connects hose from mill to agitator tank and shovels graded abrasives from vats.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

570.686-014 ABRASIVE-MIXER HELPER (nonmet. min.)

Assists ABRASIVE MIXER (nonmet. min.) in mixing ingredients to form polishing and buffing compounds by performing any of following dutie Dumps specified ingredients in mixing machine. Turns valve to drain finishe mix from machine. Transports supplies and products between plant location using handtruck. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

570.686-018 PREPARATION-ROOM WORKER (nonmet. min.) alternat titles: beater

Prepares asbestos, cotton, and synthetic fibers for use in manufacture of as bestos products, performing any combination of following duties: Assembles as bestos, cotton, and synthetic fibers, according to instructions, into lots fo blending. Feeds fibers into hopper or chute of duster, hammer mill, picker, o blending machine, using shovel or pitchfork. Opens or closes gates of blowe pipes to direct fiber from blending machine into handtrucks and trucks fibe to storage area or production department. Fastens bags under spout of bin and trips lever to fill bags with fiber. May be designated according to task performed as Blending-Machine Feeder (nonmet. min.); Picker Feeder (nonmet. min.); Stock Mixer (nonmet. min.).
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

570.687-010 BATCH MIXER (brick & tile) alternate titles: clay puddler

Mixes and dumps raw materials, such as silicas or clays, into mixers: Obtains materials from storage area, using shovel, wheelbarrow, or towmotor, and transports material to batching area. Measures specified quantities of materials according to batch cards, using scales or measuring box. Dumps material from sacks onto conveyor leading to mixer or empties bulk material from wheelbarrow into mixer.

GOE: 06.04.17 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

571 SEPARATING OCCUPATIONS

This group includes occupations concerned with separating desirable materials from others by means of filtering, sifting, straining, squeezing, centrifugal force, gravitation, precipitation, or agitating devices.

571.685-010 BURNER TENDER (mine & quarry)
Tends furnace that heats perlite to expel volatile material and reduce ore to powder (calcine) for use as insulating material, plaster, and concrete aggregate: Dumps pulverized perlite onto shaker screen that sifts perlite to specified fineness. Starts conveyor that feeds screened material into furnace. Shovels calcined perlite into sack or fills sack by holding it under discharge hopper.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

571.685-014 GLAZE HANDLER (brick & tile)
Tends equipment that filters glaze mixtures and conveys glaze to spraying units: Filters aqueous glaze through electromagnetic filters and screens to remove metal particles or other foreign substances, and stores filtered glaze in stone jars. Tests specific gravity of solutions with hydrometer and adds water to obtain solutions of designated specific gravity. Turns valves to transfer glaze to spraying units or to pressure tanks.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

572 MELTING OCCUPATIONS

This group includes occupations concerned with subjecting materials to heat to change them from a solid to a liquid state.

572.360-010 FURNACE-COMBUSTION ANALYST (glass mfg.) alternate titles: combustion analyst
Tests temperature of glass melting furnaces and regulates gas and air supply to maintain specified temperature, using any of following methods: (1) Measures temperature of furnace sections, using optical pyrometer. Sights through opening of pyrometer into furnace opening and turns sleeve dial on pyrometer until color of wire filament matches luminosity of flames. Reads dial indicator to obtain millivolt reading and compares reading with temperature chart to determine if temperature is in accordance with specifications. Turns valves to adjust gas-to-air ratio and increase or decrease temperature within retractory. (2) Computes and plots averages of glass temperatures on graph paper from temperature charts, using pencil and template to draw lines and circles. Interprets graph to determine need for temperature adjustment. Turns valve to increase or decrease air and gas supply into burners. (3) Tests gas-to-air ratio of burned atmosphere, using gas analyzer. Inserts hose of gas analyzer into furnace and starts suction pump to withdraw sample of burned atmosphere. Observes dial indicator on analyzer to determine if gas-to-air ratio is in accordance with specifications. Turns valve to adjust gas-to-air ratio and control heat of furnace. Records tests, temperatures, and adjustments in log.
GOE: 06.01.05 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

572.382-010 BATCH-AND-FURNACE OPERATOR (glass mfg.) alternate titles: furnace attendant; tank-and-batch operator
Controls automatic equipment to weigh, mix, and melt ingredients to make glass: Adjusts panel controls to transfer specified amounts of ingredients, such as silica sand, soda ash, limestone flurospar, feldspar, borax, clay, and cullet (waste glass) from storage bins to automatic weigh hopper and batch mixer [MIXER (glass mfg.)]. Adjusts panel controls to dump blended mix into furnace. Observes signal lights, dials, and charts, and turns switches to adjust air, fuel, water pressure, and furnace temperature. Turns switch to reverse gas fire from one side of gas-and-air regenerative chambers to other side to equalize heat in furnace. Observes color of molten glass through furnace opening or reads gauges or pyrometer to determine when furnace temperature has reached prescribed level. Collects sample of molten glass for laboratory analysis. Makes adjustments on equipment to correct deviations from specifications. Records batch mixing, glass melting, and production data. May control furnace to melt and fuse premixed ingredients and be designated Tank-Furnace Operator (glass mfg.).
GOE: 06.02.13 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

572.685-010 GLASS-FURNACE TENDER (paint & varnish) alternate titles: furnace tender
Tends automatic furnace that makes glass used as flux in production of glass enamel: Weighs out specified chemical ingredients. Shovels ingredients into hopper of conveyor that transports ingredients through automatic blending, pulverizing, and sifting process. Lifts tank with blended mix over hopper of gravity-fed furnace, using hoist, and releases mix from tank into hopper. Observes gauges and adjusts controls of furnace to maintain specified temperature in crucible. Stirs ingredients in hopper of furnace, using glass rod.
GOE: 06.04.13 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

572.686-010 CUPOLA CHARGER, INSULATION (nonmet. min.)
Charges cupola furnace with slag, basalt, lime, and silica to produce mineral wool: Weighs and measures portions of coke, slag, basalt, lime, and silica according to formula specified in orders from CUPOLA OPERATOR, INSULATION (concrete prod.). Charges materials into furnace in alternate layers. May use tractor equipped with scoop to move raw materials to storage and conveyors to feed materials to furnace.

GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

573 BAKING, DRYING, AND HEAT-TREATING OCCUPATIONS

This group includes occupations concerned with raising, lowering, or maintaining the temperature of materials to effect their physical composition and facilitate further processing. Includes such activities as firing terra cotta, treating formed glass with heat or cold to relieve or redistribute internal stresses and effect such characteristics as hardness and ductility, and removing liquid and moisture from materials.

573.132-010 BURNING SUPERVISOR (brick & tile) alternate titles: brick burner, head
Supervises and coordinates activities of workers engaged in controlling field, periodic, retort, and tunnel kilns to bake green clay products, such as brick, tile, and sewer pipe. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

573.362-010 DRY-KILN OPERATOR (brick & tile) alternate titles: drier operator
Controls drying tunnels to condition and dry brick, sewer pipe, roofing tile, and other clay products before treatment in kiln: Reads production schedule to determine humidity and temperature required for size and type of product to be dried. Positions portable blowers in drying aisles to circulate heat and air. Closes tunnel doors and starts blowers and heaters to regulate humidity and temperature within tunnel. Examines products for cracks indicating excessive drying. Reads humidity and temperature gauges, and adjusts speed and dampers on blowers. Directs DRY-KILN OPERATOR HELPER (brick & tile) to cover product with tarpaulin or to flood aisles with water to retard drying process. Records gauge reading in logbook. May patch damaged products, using patching clay and handtools. May control tunnel kiln [TUNNEL-KILN OPERATOR (brick & tile)].
GOE: 06.02.17 STRENGTH: M GED: R3 M2 L1 SVP: 5 DLU: 77

573.382-010 ROTARY-KILN OPERATOR (cement; chemical; mine & quarry) alternate titles: calciner; drier operator; roaster
Controls rotary type kilns and auxiliary equipment, such as conveyors, feeders, and dust collectors, to calcine chemicals, raw ground stone, gypsum, slate, or clay or cement slurry: Lights burners, starts equipment to feed materials, and moves controls to rotate kiln drum, start dust collecting mechanism, and regulate damper. Observes color and shape of flame, monitors gauges, and moves controls to regulate feed of fuel to maintain specified temperature. Records data, such as kiln temperature, fuel consumption, and power consumed. Inspects kiln for accumulation of clinkers and deterioration of lining. May fire tripod-mounted shotgun to blast clinkers from kiln wall. May tend cooler mechanism. May tend grinders and vibrating screens to pulverize and size product prior to calcining.
GOE: 06.02.17 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

573.382-014 SPRAY-DRIER OPERATOR (brick & tile)
Operates spray drier to evaporate water from clay slip to form pellets used in production of mosaic quarry, wall and floor tile: Connects hose to ball mill and drier pump, using wrenches, and opens valves. Sets controls on panelboard for specified temperatures and pressure in drier and to route pellets into specified silo. Starts pump and drier and observes dials and gauges and adjusts controls to ensure that specified temperature and pressure are maintained. Draws sample of pellets from drier and measures moisture content, using moisture meter. Records specified processing data.
GOE: 06.02.17 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

573.382-018 TUNNEL-KILN OPERATOR (brick & tile)
Controls preheating chamber and tunnel kiln to preheat and bake clay products, such as brick, sewer pipe, mosaic tile, and ceramic and quarry tile: Observes color of fires and reactions of pyrometric cones to increases in temperatures in kiln and reads gauges and automatic recording instruments to verify specified temperatures in kiln. Turns fuel and air valves and opens or closes dampers to adjust temperatures. Pulls loaded kiln car from drier, opens preheater doors, and pushes kiln car into preheater, using car puller or transfer car. Closes preheater doors and starts mechanism that pushes car through preheater. Pulls loaded kiln cars from preheating chamber, opens tunnel kiln doors, and starts mechanism that pushes string of cars through kiln. Removes cars from tunnel kiln and moves them to sorting area, using transfer car. May control kiln equipped with automatic loading and drawing equipment. May control drying tunnel [DRY-KILN OPERATOR (brick & tile) 573.362-010]. May control tunnel kiln equipped with preheating chamber to bake clay products. May be designated according to type of tile burned as Bisque-Tile Burner (brick & tile); Glost-Tile Burner (brick & tile).
GOE: 06.02.17 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 78

573.462-010 LIME-KILN OPERATOR (concrete prod.) alternate titles: kiln firer; lime burner
Controls equipment in which limestone is burned to produce lime or carbon dioxide: Turns panel controls to start flow of materials, fuel, and air, rotation of kiln and speed of conveyors, and to regulate draft and vent mechanisms. Adjusts automatic scale that controls amount of limestone flowing into kiln.

Scoops samples of hot limestone from kiln for chemical analysis, using shovel. Observes material flow, air, temperature, and fuel charts, and oxygen gauges, and makes adjustments to maintain kiln conditions within specified limits. Keeps production records. May be designated according to type kiln operated as Rotary-Kiln Operator (concrete prod.); Vertical-Kiln Operator (concrete prod.).
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L1 SVP: 5 DLU: 77

573.585-010 OVEN TENDER (glass mfg.)
Tends oven to bake cakes of fiberglass sliver for further processing: Scans tubes of sliver for defects, such as soft and unraveled edges, grease spots, and water damaged tubes. Removes defective tubes from truck. Weighs trucks of sliver, deducts tare weight, and records on production records weight of sliver processed. Pushes trucks of sliver onto oven conveyors. Turns time selector to set length of baking cycle according to instructions. Observes temperature charts to determine if specified oven temperature is maintained.
GOE: 06.04.13 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

573.662-010 FIRER, KILN (pottery & porc.) alternate titles: kiln burner; kiln operator
Controls kiln to fire greenware, or decorations or glazes on ware, to specified hardness: Gives directions to helper in preparing firebox, building up door, and lighting fires. Determines level and uniformity of oven temperature by observing, through peepholes, changes in shape and color of pyrometric cones, rings, and saggers. Regulates temperature by adjusting drafts and fuel feed. May be designated according to type kiln fired as Firer, Round Kiln (pottery & porc.); Firer, Tunnel Kiln (pottery & porc.); or type of ware fired as Decorating-Kiln Operator (pottery & porc.); Firer, Bisque Kiln (pottery & porc.); Firer, Glost Kiln (pottery & porc.).
GOE: 06.02.18 STRENGTH: M GED: R4 M3 L2 SVP: 5 DLU: 77

573.667-010 KILN DRAWER (pottery & porc.) alternate titles: round-kiln drawer
Removes fired ware, such as china or pottery, from kiln and prepares kiln for reuse: Opens kiln door or removes brick and mortar that seals kiln during firing. Picks up fired ware from tunnel-kiln car, conveyor slabs, or from saggers. Presses ware against abrasive grinding wheel to remove rough spots or marks. Segregates ware according to pattern or design. Cleans interior of kiln. May be designated according to kiln drawn as Bisque-Kiln Drawer (pottery & porc.); Glost-Kiln Drawer (pottery & porc.); Tunnel-Kiln Drawer (pottery & porc.).
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

573.682-010 KILN BURNER (brick & tile) alternate titles: baker; burner
Controls periodic, field, or retort kilns to bake clay products, such as brick, sewer pipe, clay refractories, and roofing tile: Opens fuel valves and lights gas or oil fire, using oil-soaked stick. Seals kiln door with bricks and daubs brick with clay to prevent loss of heat, using trowel. Observes thermometer and action of pyrometric cones through peepholes, or removes object from kiln with tongs and examines object to determine rate of burning. Turns gas or oil valves and dampers to adjust rate of burning or baking of objects. Closes fuel valves and fireboxes, opens kiln-crown holes, and installs fans to cool objects. May be designated according to type of kiln operated as Dry-Kiln Burner (brick & tile); Field-Kiln Burner (brick & tile); Retort-Kiln Burner (brick & tile); or according to product burned as Brick-Kiln Burner (brick & tile); Roofing-Tile Burner (brick & tile).
GOE: 06.04.17 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

573.683-010 STEAM-TANK OPERATOR (nonmet. min.)
Tends autoclave to cure asbestos-cement pipe: Transports specified supplies and empty trays (forms) to forming department, and trays loaded with pipe to curing area, using industrial truck. Loads autoclave with trays of pipe, using industrial truck. Closes autoclave door and inserts safety pin to secure door. Places chart on recording instrument and sets indicator for starting time and curing limits. Opens steam value to build up specified pressure in autoclave. Closes valves, opens exhaust vents and starts fans to reduce steam pressure to specified level and opens autoclave door. Removes cured pipe from autoclave, using industrial truck. Maintains record of production.
GOE: 06.04.16 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

573.684-010 KILN-DOOR BUILDER (brick & tile) alternate titles: sealer and stripper
Builds temporary casing doors and seals crown openings in kilns, using handtools: Stacks brick in doorway of kiln. Mixes dirt and water to form mud, and spreads mud over brick to seal opening, using trowel. Climbs on top of kiln and places covers or crown openings over kiln and seals them with mud. Positions and screws burners in openings. Pulls down doors with hook after firing of kiln and removes crown covers to control cooling.
GOE: 05.10.01 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

573.684-014 SETTER (brick & tile) alternate titles: kiln setter; kiln stacker
Stacks products, such as blocks, bricks, sewer pipe, and roofing tile in specified patterns on tunnel kiln cars or in periodic kilns for burning: Spaces and levels setting rings on kiln car or in kiln to facilitate circulation of air about products during burning. Spreads sand on floor or setting rings to prevent cohesion of products during burning. Lifts and positions products on setting rings, using air-hoist. Examines products for cracks and measures them for straightness, using straightedge. Discards defective products. May direct SETTER HELPER (brick & tile). May draw products from kiln.
GOE: 06.04.40 STRENGTH: H GED: R2 M2 L1 SVP: 4 DLU: 77

573.685-010 ANNEALER (glass products) alternate titles: firer
Tends gas or electric kiln to affix paint on glass: Ignites and regulates gas burners to heat kiln to prescribed temperature, or regulates thermostat to control temperature of electric kiln. Spreads plaster of paris on metal trays with trowel, roller, or palette knife to form smooth, level bed for glass. Sets sections of glass on trays and positions trays in kilns, using tongs. Observes glass through peepholes in kilns to detect signs of warping, bubbling, cracking, or blistering. Removes trays after specified period of time, and stacks trays for gradual cooling and annealing in lehr.
GOE: 06.04.13 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

573.685-014 CLAY ROASTER (petrol. refin.) alternate titles: burner operator; clay burner; earth burner
Tends clay roasting kilns and auxiliary equipment in which clay, used as filter in treating oil, is cleaned and treated for reuse. Adjusts temperature of rotary kilns in which clay is roasted, by regulating valves controlling gas or oil and air supply. Starts, stops, and regulates speed of conveyors and elevators by which used clay is charged into kilns from storage bins. Fires oil-burning or gas-burning steam heater to supply steam for treating clay before it is dumped from filters. Checks weight per cubic foot of clay to determine whether it conforms to requirements, using spring balance. Cleans lumps of fused clay from screens at outlet of kilns. Oils and greases equipment.
GOE: 06.04.17 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

573.685-018 GLAZING-MACHINE OPERATOR (glass mfg.) alternate titles: beveler; finisher; tube closing machine operator; tube finishing machine operator
Tends equipment that heats and fire polishes glassware, such as tubes, kitchen utensils, and trays to remove defects, such as rough surfaces, air bubbles, and chips, or to seal tubes: Places tubes on spindles or other glassware on rotating table which carries them into contact with gas flame to melt or fuse glass. Turn valves to regulate polishing flame. Removes articles after heating with tongs.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

573.685-022 KILN-OPERATOR HELPER (concrete prod.) alternate titles: kiln-firer helper
Assists LIME-KILN OPERATOR (concrete prod.) to control kiln used in converting limestone into lime: Opens and closes gates on kiln to adjust draft as directed. Observes flow of lime from kiln and removes lumps blocking discharge end of kiln, using bar. Shovels spilled material onto conveyor. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.11 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

573.685-026 LEHR TENDER (glass mfg.) alternate titles: automatic lehr operator; furnace operator; heat treat worker; lehr attendant; lehr operator; lehr stripper
Tends automatic or semiautomatic lehrs that anneal flat glass or glassware to relieve internal stresses or to fuse painted designs on glassware: Observes gauges and turns controls to start exhaust fans, to ignite burners, and to regulate lehr temperatures, speed of lehr conveyors, and draft rates. Observes annealed glass for splits, cracks, breaks, and color that indicate improper lehr settings or for fusing of paint to glass. Loads or unloads glass entering or leaving lehr by hoisting flat glass with vacuum-cupped crane or by manually placing glassware on and removing from lehr conveyor. Packs annealed glass by placing flat glass in crates, using vacuum-cupped crane, or inserting glassware in cartons. Maintains record of glass annealed and packed. May adjust height of lehr entranceway curtain to accommodate containers of specific height. May tend hot- or cold-end spray equipment used to coat glassware with surface hardener. May change conveyor gears to alter speed of conveyor and replace defective burners, using handtools.
GOE: 06.04.13 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

573.685-030 LENS HARDENER (optical goods)
Tends electric oven-type machine that hardens lenses used in safety eyeglasses, and tests hardness of lens, using steel-ball drop-test: Measures lens thickness with calipers to determine if lens meets thickness requirements for prescribed hardening. Positions lenses in holding fixture and pushes fixture into electric oven. Sets timer and temperature controls on oven according to chart specifications for prescribed hardness of lens. Removes lenses at end of cooling cycle, or places lenses in airflow to cool. Holds finished lens in polarized light fixture to detect defects produced by hardening. Places lens on bed of drop-test fixture and covers lens with cloth or plastic. Places steel ball of specified weight in release mechanism of fixture. Positions mechanism at specified distance from lens and releases ball. Discards broken lenses.
GOE: 06.04.13 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

573.685-034 REGENERATOR OPERATOR (sugar & conf.)
Tends furnace driers, and auxiliary equipment that regenerate diatomaceous earth used as filtering medium: Opens valves on storage tank to allow dry earth to mix with mud discharged from filter. Feels mixture and adjusts valves to obtain mixture that can be dried readily. Moves controls to regulate flow of mixture to furnace driers, and temperatures of furnace to ensure specified regeneration. Obtains samples of earth before and after regeneration for lab-

oratory analysis. Turns valves to route regenerated earth to storage bins. Clears blockages in minglers, dust collector hoppers, and mud gauges. Changes and cleans pump screens. May be designated according to material regenerated as Kieselguhr-Regenerator Operator (sugar & conf.).
GOE: 06.04.17 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

573.685-038 BURNER (brick & tile)
Tends kilns that fire magnesium materials, such as filter cake and briquettes to remove specified impurities: Observes influx of material into kiln and movement of material through kiln stages to verify that material passes through kiln at prescribed rate. Monitors console dials and gauges and adjusts controls to maintain specified temperatures and other processing parameters. May be designated according to type of kiln tended as Burner, Hearth (brick & tile); Burner, Shaft (brick & tile).
GOE: 06.04.17 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 86

573.685-042 OVEN-PRESS TENDER I (nonmet. min.)
Tends hot press and related equipment that hardens asbestos disc pads for use as brake linings: Positions metal die plate on roller-type conveyor, picks up stack of asbestos disc pads from table, and places individual pads into wells of die plate. Discards broken or defective pads. Pushes filled die plates onto racks of hot press. Starts machine that automatically closes press to heattreat pads for specified time and opens press at end of press cycle. Pulls die plates from press onto conveyor. Removes cured disc pads from die plates, using knockout device that forces pads from plates. Loosens stuck pads with rubber mallet and tosses pads into storage container. Sprays empty die plates with silicone solution, using spray gun, to prevent pads from sticking to plates during heat-treating process.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 86

573.685-046 OVEN-PRESS TENDER II (nonmet. min.)
Tends hot press that hardens asbestos disc pads for use as brake linings: Pushes metal die plates filled with asbestos disc pads onto feed elevator of machine. Presses buttons to open press, move die plates from elevator into press, and close press. Observes timer lights, dials, and pressure gauges on control panel of machine to determine end of press cycle. Presses buttons at end of cycle to simultaneously open press and move cured disc pads from press onto discharge elevator. Pushes die plates from elevator onto roller-type conveyor, using metal rake.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 86

573.686-010 BRAKE-LINING CURER (nonmet. min.)
Feeds and off bears oven that cures and hardens brake linings: Presses switches to ignite burners in oven and start conveyor. Lifts spring-loaded mold onto table and opens mold with pressure device. Places brake lining into mold and releases pressure device to close mold. Places mold containing brake lining on conveyor that moves mold through oven to cure and harden brake lining. Off bears mold from conveyor, removes cured lining from mold, and places lining on rack. Records production data.
GOE: 06.04.19 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

573.686-014 FUSING-FURNACE LOADER (optical goods) alternate titles: furnace clerk; picker
Loads and unloads conveyor of furnace that fuses multifocal lens parts: Positions multifocal lens blank and button assemblies, or assembled button parts, on emery disks, places disks on trays, and places filled trays on conveyor that passes through fusing furnace. Removes trays of fused items from end of conveyor and places them in rack to cool. Records production count. May mark identification number on lenses, using marking pen. May observe temperature indicators and inform supervisor of furnace malfunction.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

573.686-018 GLASS-VIAL-BENDING-CONVEYOR FEEDER (cutlery-hrdwr.) alternate titles: glass bender
Places glass vials for levels on endless belt conveyor that carries vials through gas heated oven to soften glass and form curve required for centering level bubble: Removes filled box and bundles vials, hole end up, in metal cups. Carries racked cups in tray to filling work station.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

573.686-022 HACKER (brick & tile)
Lifts green-clay products, such as brick, roofing tile, or quarry floor tile, from press-conveyor belt, and stacks them in specified pattern on kiln car, drier rack, or pallet. May press button to control movement of conveyor belt.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

573.686-026 KILN PLACER (pottery & porc.) alternate titles: kiln setter; sagger filler; setter-in
Places greenware and glazed ware on kiln conveyor for firing: Arranges ware on metal or firebrick slab, using kiln furniture, such as saggers and setter pins, to separate and support ware during firing cycle. Places pyrometric cones, that bend at predetermined temperatures and indicate when desired heat in kiln is reached, on top of ware load. Turns handwheel to move hydraulic ram into contact with slab to convey ware load through kiln. Closes door of kiln. May be designated according to type of kiln loaded as Bisque-Kiln Placer (pottery & porc.); Glost-Kiln Placer (pottery & porc.).
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 81

573.687-010 BEDDER (pottery & porc.) alternate titles: claying-up worker; sander-up
Sets greenware in piles with sand and clay between pieces to support and separate them during bisque-kiln firing by either of following methods: (1) Throws refractory clay mixed with sand between each plate, and after pile is built up, fills in edges with refractory clay, packing and pressing it by hand. (2) Arranges ware in piles with sandy clay between layers. Fills in edges by setting pile on whirler which revolves it before spout forcing fine sand or refractory clay by gravity between plates. Inspects ware and rejects inferior pieces. May build up pile of greenware in saggers, sanding and packing it piece by piece.
GOE: 06.04.30 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

573.687-014 DRY-KILN OPERATOR HELPER (brick & tile)
Assists DRY-KILN OPERATOR (brick & tile) in drying clay products in tunnel: Positions fans in drying areas to circulate heated air. Closes or opens tunnel room doors. Covers product with canvas or sacking. Floods aisles with water. Adjusts floor furnace to maintain specified temperature and circulation of heat. Examines products in tunnel for cracks or other defects. Patches damaged products with patching clay, using handtools. Brushes paint sealer or drying agent on product to retard evaporation. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

573.687-018 KILN CLEANER (concrete prod.)
Cleans bottom of lime kilns and rubberized conveyors. Sweeps, stacks, and removes refuse, using brooms, brushes, and shovels and performs related tasks.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

573.687-022 KILN WORKER (pottery & porc.) alternate titles: kiln maintenance laborer
Performs routine tasks concerned with maintenance and repair of kilns under direction of such workers as KILN PLACERS (pottery & porc.) or BRICKLAYERS (brick & tile).
GOE: 06.04.17 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

573.687-026 KILN-BURNER HELPER (brick & tile)
Assists KILN BURNER (brick & tile) 573.682-010 in baking clay products, such as tile, sewer pipe, brick, and refractories, in periodic or tunnel kilns: Pushes loaded kiln cars into kilns and driers, using hydraulic ram. Removes cars from kilns or driers, using car puller. Transports loaded or empty cars from kiln tracks to car siding, sorting, or storage area, using electric-transfer car. Lubricates kiln cars, using grease gun. Opens and closes kiln doors. Tears down kiln doors, using handtools and bars. Separates sand from finished mosaic tiles in saggers, using screening device. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 79

573.687-030 SETTER HELPER (brick & tile) alternate titles: kiln-setter helper
Loads and moves clay products on kiln cars into kilns for burning: Places setting rings on floor of kiln cars or periodic kiln according to setting pattern. Moves setting table in kiln and pushes loaded trailer into kiln. Carries defective or rejected pipe from kiln. Clips pipe on kiln cars to secure load. Stacks empty boards and pallets.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

573.687-034 SORTER (brick & tile) alternate titles: inspector; yard pipe grader
Sorts burned clay products, such as brick, roofing tile, and sewer pipe, according to form, color, and surface characteristics: Picks up products from kiln car, pallet, or handtruck, and examines products for defects, such as cracks, chipped edges, squareness, and discoloration. Sorts products into piles according to varying degrees of characteristics. Discards unusable products. May stack bricks in specified pattern for banding by machine. May be designated according to product sorted as Brick Sorter (brick & tile); Roofing-Tile Sorter (brick & tile); Sewer-Pipe Sorter (brick & tile).
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 78

573.687-038 TILE SORTER (brick & tile) alternate titles: glost tile sorter
Sorts glazed tile according to color shades and defects: Picks up tile from tray, compares it against color shades on color sample board, and sorts it according to shade variations. Examines tile for defects, such as cracks, spots, warping, and dents, and grades it according to quality. Keeps records of tile rejected. May pack tile in cartons.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

574 IMPREGNATING, COATING, AND GLAZING OCCUPATIONS

This group includes occupations concerned with impregnating, dip coating, brushing, spraying, rolling, or spreading materials with other substances. Includes uniting filaments of glass or mineral wool batts; silvering mirrors; solidifying asbestos fibers to form brake bands; and covering pottery with glazing sap.

574.130-010 GLAZE SUPERVISOR (brick & tile)
Supervises and coordinates activities of workers engaged in operating frit-furnaces, ball mills, and mixing and spraying machines to make glaze and to spray glaze on brick and tile products. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M2 L2 SVP: 7 DLU: 77

574.132-010 GLAZE SUPERVISOR (pottery & porc.)
Supervises and coordinates activities of workers engaged in applying glaze to bisque or greenware and drying ware prior to firing: Inspects sprayed, dipped, or dried ware for defects in glaze coating and weighs sample ware for conformance to specifications. Verifies viscosity of glaze, using viscometer. Issues instructions or adjusts controls of processing equipment to correct glaze defects. Performs other duties described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

574.132-014 SUPERVISOR, SILVERING DEPARTMENT (glass products)
Supervises and coordinates activities of workers engaged in operating silvering range to manufacture mirrors: Observes washing, silvering, painting, and drying processes, and inspects mirrors for quality. Determines surface temperature of mirrors after drying, using pyrometer. Observes pressure gauges and thermometers on conveyors to verify specified water temperature and air pressures. Turns heat control button to regulate oven temperature. Maintains record of chemicals used in preparing silver and copper solutions. May weigh or examine painted glass sample to determine density of paint. May operate silvering unit of silvering range. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

574.134-010 SUPERVISOR, HAND SILVERING (glass products)
Supervises and coordinates activities of workers engaged in washing, silvering and painting by hand, cleaning, and inspecting glass used in manufacture of mirrors: Inspects washed, silvered, and painted glass to detect faulty washwater or chemical solutions, and uneven paint, silver, or copper coatings. Observes drying-oven thermometer to verify specified oven temperature. Weighs and measures chemical ingredients according to formula to prepare tin, silver, and copper solutions and reducing agents. Pours or combines chemicals in mixing tank, and transfers solution to storage tank. May wash, silver, paint, clean, or polish mirrors. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

574.367-010 TILE SHADER (brick & tile) alternate titles: glost-tile shader; shade classifier; tile classifier
Classifies samples of glazed tile according to color shade, and prepares color sample for board for use by TILE SORTER (brick & tile): Selects samples of burned tile and examines tile to determine number of shade variations in each lot. Assigns catalog number for each color variation. Mounts tile samples of each shade on board. Explains range of variations in each shade to TILE SORTER (brick & tile) to ensure uniform sorting of shades.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

574.462-010 ABRASIVE-COATING-MACHINE OPERATOR (nonmet. min.)
Sets up and operates machine to coat cloth, fiber, or paper with granules of abrasive material: Positions machine guides and stops on machine bed according to size of base material, using rule or template. Turns screws to adjust valve openings to regulate thickness of abrasive coating sprinkled on base material. Dumps specified abrasive, such as flint, garnet, emery, or corundum into container on machine. Positions flat piece of base material on machine bed and against guides and stops. Starts machine and manually feeds base material through machine. Examines base material for uniformity and thickness of abrasive coating. May operate machine to coat rolls of base material with abrasive granules.
GOE: 06.02.21 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

574.484-010 OPTICAL-GLASS SILVERER (optical goods) alternate titles: silverer
Coats optical glass surfaces with silvering solutions to make mirrors used in optical instruments: Cleans glass specimens, using prescribed chemicals, and inspects to detect surface appearance defects. Mixes chemicals according to formula and pours solution into funnels. Positions glass under funnels and starts electric motor to agitate funnels and allow specified quantities of solution to distribute over surface of glass. Electroplates copper backing over silvering by immersing glass in electrolyte and passing electric current through solution according to standard procedure. Places plated glass in electric oven to dry for specified time. Marks outlines of specified dimensions on glass specimen, using milling machine. Removes excess silvering and copper, using hand scraper and solvents.
GOE: 06.04.33 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

574.582-010 SILVERING APPLICATOR (glass products)
Sets up and operates silvering range to mix and spray tin, silver, and copper solutions on mirror glass: Weighs or measures chemical ingredients, following formula. Turns valves to admit steam and specified amount of water into mixing vat. Verifies water temperature and pours ingredients into vat. Starts power mixer to mix solutions for specified time. Turns valve to drain solutions into storage tanks. Starts unit of range and turns valves to start flow of solutions into spray heads. Observes silvering process to detect clogged sprays, uneven silver and copper coating, and imperfections, such as streaks and spots, and color of sludge, that indicate impure water or faulty copper and silver mix. Turns valves to regulate air pressure to sprayer and to maintain specified water temperature. Removes spray heads and pipes with wrenches and soaks spray heads in cleaning fluid. Records batches mixed and chemicals used. May measure and record thickness of silver coating, using gauge.
GOE: 06.02.21 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

574.585-010 PAPERHANGER (concrete prod.)
Tends machine that combines paper and plaster to form continuous ribbon of wallboard (plasterboard): Inserts shaft through paper roll, places plates and collars over ends of shaft, and secures collars with wrench. Mounts and aligns rolls of paper in machine racks, using hoist. Threads paper through guides with unsized surface next to plaster. Starts and monitors machine for alignment an defective paper, such as pinholes, rough surface, mill splices, and soiled areas Stops machine to cut defective paper from roll and splice ends by overlapping them and to splice exhausted paper to new roll. Records identifying number weight, and amount of paper wasted for each roll.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

574.665-010 FIBERGLASS-BONDING-MACHINE TENDER (glass mfg. alternate titles: bonded-strand operator
Tends waxing machine that bonds several strands of fiberglass yarn into single cord: Places bobbins of yarn on creel of machine and threads yarn throug guides, over and under tension bars, through strip heater, wax reservoir, dies and cooling tank, and laps end of cord around mandrel of winding machine Places chunks of wax in melting tank and turns valve to admit melted wax int reservoir. Starts machine and observes waxing and winding process to dete broken ends. Ties ends together by hand. Dips thermometer into wax and wate or reads temperature gauge on control panel to detect variations from standards Doffs tubes of bonded cord from machine. Weighs tubes of bonded cord an packs cord in shipping containers. Records weight on labels and productio records.
GOE: 06.04.16 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

574.667-010 DUST BOX WORKER (build. mat., nec)
Positions swinging conveyor spout over hopper of machine that deposits slat granules on surface of asphalt-coated roofing felt, and notifies SLATE MIXE (build. mat., nec) to start conveyor and flow of slate ofspecified color. Verifie level of slate in tanks to maintain supply.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

574.682-010 FIBERGLASS-MACHINE OPERATOR (glass products)
Operates machine to spray melted glass fibers onto products, such as boa hulls and lawn furniture: Feeds strands of raw fiberglass into machine, monitor gauges, and moves controls to obtain specified temperature, pressure, and flo rate of molten glass through spray jets onto article to be coated. Cleans an adjusts machine, according to maintenance schedlle or instructions from supervisor, using handtools and prescribed cleaning agents.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

574.682-014 SPRAY-MACHINE OPERATOR (brick & tile; pottery & porc.) alternate titles: sprayer, automatic spray machine
Controls combination drying oven and spray booth equipment that preheat and glazes bisque ware: Lights gas jets of drying ovens that preheat ware t set glaze. Adjusts controls to regulate speed of conveyor. Starts pumps to pum glaze to spray guns. Positions spray guns in booths at required angles, adjust nozzles, and turns valves controlling air pressure to produce even coating o glaze according to size and shape of ware. Examines glazed ware for cracks glaze runs, and uneven thickness of glaze. Cleans machine and replaces clogge glaze filters, air lines, and spray nozzles. May coat interior of ware with glaze using spray gun.
GOE: 06.02.21 STRENGTH: M GED: R3 M2 L1 SVP: 3 DLU: 81

574.684-010 GROUND LAYER (pottery & porc.) alternate titles: duster
Applies powdered glaze to plain or decorated clayware: Dusts dry glaze ove portion of ware previously coated with liquid size. Removes excess powder an distributes glaze evenly over sized area, by hand. May smooth and clean war to be dusted, using sandpaper and sponge.
GOE: 06.04.33 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

574.684-014 SILVERER (glass products) alternate titles: mirror silverer
Sprays back of mirror glass with silver or copper solution to coat glass, usin spray gun: Turns valve to admit solution and reducing agents into spray gu and sprays surface of glass. Rinses glass with hose before and after applicatio of solution to remove residue. Observes sprayed surface to detect spots, streaks and residue coloring that indicate faulty mix or reducer burns. Transfers si vered or coppered glass from rack onto conveyor of drying ovens. May clea polish, and frame mirrors.
GOE: 06.04.33 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

574.685-010 COATER, BRAKE LININGS (nonmet. min.)
Tends machine that automatically coats inside of brake lining with adhesiv preparatory to bonding lining to brake shoe: Starts machine and conveyor an feeds brake lining into machine to obtain sample for approval by superviso Feeds brake linings into machine and observes coating for conformance t specifications as linings are discharged onto conveyor. Places linings with coating defects aside for disposal.
GOE: 06.04.21 STRENGTH: S GED: R2 M1 L2 SVP: 2 DLU: 77

574.685-014 PAINT-SPRAY TENDER (glass products)
Tends paint spraying and drying units of mirror-silvering range that spra and dry paint coatings on silvered glass: Measures paint and thinner, accordin

to formula, and pours paint into storage tank. Turns valves to start power mixer and flow of paint to spray heads. Pushes button to start spray heads across conveyor, to clear thinner from paint lines, and to spray paint on silvered glass. Observes painting area to detect uneven spray. Reads pressure gauges and turns valves to adjust paint flow and air pressure. Regulates oven temperature as specified. Removes spray nozzles and pipelines with wrenches and cleans equipment, using solvents. Pours paint thinner into paint lines to prevent paint residue from hardening and clogging paint lines. May determine amount of paint applied to glass, comparing sample with factory standard, or weighing glass before and after painting. May disassemble carriage and replace worn or broken parts of spraying unit.
GOE: 06.04.21 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

574.686-010 SPRAY-MACHINE LOADER (brick & tile; pottery & porc.)
Feeds or off bears machine operated by SPRAY-MACHINE OPERATOR (brick & tile; pottery & porc.) 574.682-014 that sprays glaze onto bisque tile or pottery ware. Examines sprayed ware and segregates defective pieces.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

575 FORMING OCCUPATIONS

This group includes occupations concerned with shaping material by pouring, injecting, blowing, gathering, bending, or pressing it in, upon, or around a mold, die or similar device; forcing or pulling it through dies or rollers; drawing it from an emitting source at rates of speed and temperatures which determine its diameter. Includes baking, drying, and cooling of formed materials when done by the worker who formed them.

575.130-010 PRESS SUPERVISOR (brick & tile)
Supervises and coordinates activities of workers engaged in operating auger presses, friction presses, handpresses, and ram presses to press clay into products, such as brick, tile, and sewer pipe, and in drying products for firing. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L2 SVP: 7 DLU: 78

575.130-014 SUPERVISOR III (nonmet. min.)
Supervises and coordinates activities of workers engaged in molding, curing, and cutting fiberglass pipe coverings: Sets up and adjusts machinery and equipment. Trains new workers in operation of machinery and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

575.130-018 SUPERVISOR, FORMING DEPARTMENT I (glass mfg.)
Supervises and coordinates workers engaged in operating either press-and-blow, blow-and-blow, or spin forming machines and controlling auxiliary equipment, such as forehearths and lehrs, used to form glass bottles, containers, and other glassware: Reviews production schedules to plan job change-overs, to requisition molds and parts from mold department, and to assign workers. Observes machine operations to verify mold pressures and temperatures, plunger pressures, timing of sequences, and size of gob (lump of molten glass), using knowledge of machine operation and product specifications. Inspects formed glassware for surface defects and conformance to specifications for size, shape, and weight, using templates, dial indicators, and scales. May make or assist in making job change-overs by removing and replacing molds, air lines *feeder tubes*, and plungers, and by adjusting gob shears and timing mechanism, using handtools and knowledge of job change-over procedures. May regulate and adjust temperatures and conveyor speeds of annealing lehr. May be designated Supervisor, Bottle Machines (glass mfg.). Performs other duties described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

575.131-010 SUPERVISOR, CONCRETE-STONE FABRICATING (concrete prod.) alternate titles: casting supervisor
Supervises and coordinates activities of workers engaged in casting concrete with granite, quartz, or vitreous porcelain to form structural panels, floor and roof slabs, flower planters, highway dividers, and grave markers. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

575.131-014 SUPERVISOR, PRECAST AND PRESTRESSED CONCRETE (concrete prod.)
Supervises and coordinates activities of workers engaged in assembly of precut wood and metal forms for molding reinforced concrete slabs and beams, and pouring and finishing of concrete: Lays out and marks measurements for assembly of new forms on prepared molding floor, from blueprints and drawings. Directs workers engaged in bolting or clamping together of forms and tightens bolts to attain prescribed tension on wire or cable reinforcing members, using wrench equipped with torque gauge. Directs workers engaged in mixing, and pouring of concrete into molds. Finishes concrete to impart uniform texture, using trowel, floats, and other handtools or work aids. Releases tension on reinforcing members during drying and curing process, using wrench, to impart slight arc and increase strength of concrete.
GOE: 05.05.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 78

575.137-010 DRAWING-KILN SUPERVISOR (glass mfg.)
Supervises and coordinates activities of workers engaged in melting and drawing of glass into sheet form: Reads recorder instruments to verify specified melting-tank temperatures. Observes glass drawing process to ensure glass is drawn to specifications. Determines cause of malfunctioning equipment or defects in glass, and advises DRAWING-KILN OPERATOR (glass mfg.) of action necessary for correction. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 77

575.137-014 SUPERVISOR, WET POUR (concrete prod.)
Supervises and coordinates activities of workers engaged in setting up forms and pouring wet-mix concrete to make water and sewer pipe, manholes, steel wire reinforcing cages, and to repair damaged pipe. May conduct quality control tests on finished products. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M2 L2 SVP: 7 DLU: 77

575.360-010 GLASS-BULB-MACHINE ADJUSTER (glass mfg.)
Sets up and adjusts automatic, multiunit, bulb-forming machines, using handtools, work orders, and measuring devices: Installs fixtures, such as collets, tube feeders, and molds, and attaches fuel, air, and coolant lines to machine, following specifications. Adjusts controls, such as stop guides, setscrews, timing devices, and cams to synchronize machine mechanisms. Regulates temperature control of burner units. Replaces defective parts, such as collets, molds, seals, and fuel, air, and coolant lines. Starts machine to test adjustments and examines product to determine need for readjustments.
GOE: 06.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

575.362-010 DRAWING-KILN OPERATOR (glass mfg.) alternate titles: drawing-machine operator; kiln operator
Operates drawing kiln to process molten glass into continuous sheet of flat glass: Sets rheostat to control speed of rolls on kiln that draw glass sheet of specified thickness, and adjusts setting to maintain thickness, based on gauge or recorder readings during processing. Regulates gas-firing to edges of glass sheet to prevent slippage of sheet from knurl guide wheels. Inspects glass sheet through kiln peephole for defects, such as stones and blisters, as sheet is drawn vertically by rolls. Signals BALCONY WORKER (glass mfg.) to open rolls and allow passage of defective area to prevent break in sheet. Receives gauge readings and positions asbestos pads on sides of cooling jacket in kiln with iron rod to correct irregular thickness in glass sheet. Closes lower roll of drawing kiln to prevent broken sheets of glass from collapsing into kiln. Lights auxiliary gas jets in kiln to heat glass sheet below break and stop run of break. Replaces jacket cooling pads and plugs in kiln with mortar, using trowel.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

575.362-014 GLASS-RIBBON-MACHINE OPERATOR (glass mfg.)
Sets up and operates automatic machine to form bulbs and other products from molten glass: Installs molds, forming devices, and orifice plates, following specifications. Positions forming mechanisms between forehearth and lehr. Turns controls to regulate temperatures and pressures in forehearth and forming molds and flow of coolant on rollers. Verifies temperature of molten glass in forehearth, using optical pyrometer. Raises plunger forehearth orifice to start flow of molten glass through machine units. Adjusts rollers to control glass thickness, using handtools and measuring devices. Monitors gauges, such as temperature, pressure, machine speed, and rate of glass flow. Examines for variations from processing standards, using templates and gauges.
GOE: 06.02.13 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

575.365-010 GLASS-RIBBON-MACHINE-OPERATOR ASSISTANT (glass mfg.)
Tends intermediate units of machine that forms bulbs and other products from molten glass: Positions turntable at crack-off (breaking) unit and synchronizes motion of hammer with flow of molten glass to separate bulbs from ribbon. Turns controls to regulate machine speed, flow of coolant on molten glass, and temperature in machine units. Aligns glass ribbon in units with wooden pole, following signal from GLASS-RIBBON-MACHINE OPERATOR (glass mfg.). Inspects orifice plates for damage and cleans excess glass from plate, using hammer.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

575.380-010 FORMING-MACHINE UPKEEP MECHANIC (glass mfg.) alternate titles: upkeep mechanic
Sets up, adjusts, and repairs automatic glass forming machines, such as press-and-blow, blow-and-blow, and spinning machines, used to form bottles, containers, and other glassware, utilizing knowledge of glass forming machinery: Reads work order to determine which molds, mold components, and machine parts are needed. Removes molds, mold components, and *feeder tubes* from machines, using handtools. Mounts blanking mold and final mold to hanger arms on machine, and installs gob (lumb of molten glass) feeder tube leading from forehearth to molds, using handtools. Installs and aligns *neck rings* and press plunger to blanking mold to form neck and mouth of glassware, using handtools. Couples air lines to molds and coolant lines to mold jacket to regulate solidification of glass. Adjusts size of orifice which releases gob from forehearth, and shears cutting gob to control size of gob fed to mold, using handtools. Adjusts *trip buttons* on *timer drum* to set gob feeding, blank molding, final molding, and discharge sequence. Couples gas line to preheating burner under mold to maintain plasticity of glass during molding. Turns controls that regulate air pressures, coolant flows, gas line pressure, and glass temperatures in forehearth to form acceptable products, using knowledge of machine operation and product specifications. Performs test run and inspects glassware to verify setup. Repairs damaged machines by replacing defective parts,

such as cams, hanger arms, or forming components, using handtools. Changes lehr drive gears to control annealing time of glassware in lehr. May be assisted by FORMING-MACHINE OPERATOR (glass mfg.) in setting up machines. May ascertain temperature of gob, using pyrometer.
GOE: 06.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

575.381-010 MOLDER (optical goods)
Molds optical glass into various shaped blanks: Reads work order to determine type and quantity of optical glass to be molded. Changes dies and adjusts length of stroke and pressure of press, and regulates temperature of ovens and die heater according to type of glass to be processed. Places glass pieces in preheating oven to prepare glass for molding. Spreads refractory powder on oven floor to prevent glass from sticking and places preheated glass in oven. Presses glass pieces with paddles to determine readiness for molding and to shape glass to approximate shape of spoon die. Slides glass into spoon die, positions die in press, and depresses pedal to lower ram of press to mold glass blank. Removes spoon die from press and drops molded blank onto floor of cooling oven.
GOE: 06.02.30 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

575.382-010 BRICK-AND-TILE-MAKING-MACHINE OPERATOR (brick & tile)
Sets up and operates series of machines to mix ingredients, extrude clay mixture, and to cut extruded column into brick and tile products: Turns valves to feed and regulate flow of ingredients into mixing machine and to create vacuum in de-airing machine. Installs die, core, rings, and former in extrusion head, using handtools and measuring instruments. Sets controls on automatic cutoff knives to cut clay column according to job order specifications. Starts machinery. Examines extruded product to detect variations from specified hardness, and turns valves to feed water and oil into pug mill to correct consistency of clay. Replaces knives, reamers, and finishers in automatic finishing units. Records production. May operate individual machine and be designated Auger-Press Operator (brick & tile); Cutter Operator, Brick (brick & tile); Cutter Operator, Tile (brick & tile); Pug Mill Operator (brick & tile; pottery & porc.).
GOE: 06.02.17 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 78

575.382-014 FORMING-MACHINE OPERATOR (glass mfg.) alternate titles: automatic forming machine operator; flow machine operator; glass blower, machine forming
Sets up and operates automatic glass forming machines that either press, blow, or spin gobs (lumps) of molten glass in molds to form bottles, containers, cathode ray tubes, and other glass products: Adjusts shears to cut or plungers to force gobs from forehearth, using handtools. Installs and adjusts *feeder tubes* leading from forehearth to molds to deliver gob to mold, using wrenches. Mounts and bolts blanking molds and final molds to hanger arms on machine, or bolts molder to spinner plates, using handtools. Installs and aligns *neck rings* and press plungers to blanking molds, using wrenches, to form neck and mouths of product. Couples air lines to molds and coolant lines to mold jacket to regulate solidification of formed glass. Couples gas lines to burners under molds to maintain plasticity of glass during forming. Adjusts *trip buttons* on *timer drum* to set gob feeding, blank molding, final molding, and product discharging sequence. Turns controls to regulate air pressure, gas pressure, glass temperatures, and coolant flow. Observes machine operation to maintain sequences and air and fluid volumes, using knowledge of machine operation and product specifications. Frequently swabs molds with graphite solution to prevent glass from sticking to mold, using swab or spray gun. Periodically, visually examines product for surface defects that indicate damaged or scored molds and measures shape, size, and weight of product, using fixed gauges and scales to determine if air pressure, solidification rate, and gob size are correct. May regulate annealing lehrs to cool glass product. May be designated by product formed as Bottle-Machine Operator (glass mfg.). May be called Mold-Press Operator (glass mfg.) if operating press-and-blow machine with indexing turntable.
GOE: 06.02.13 STRENGTH: M GED: R3 M3 L2 SVP: 7 DLU: 77

575.382-018 GLASS-BULB-MACHINE FORMER, TUBULAR STOCK (glass mfg.)
Operates automatic, multiunit machine to form bulbs and other glass products from tubular stock: Loads glass tubes in feed mechanism and clamps collets around rods to secure and position tubular stock for molding process. Observes operation to determine variations from prescribed temperature levels, and turns controls, aims burners, or places and ignites auxiliary burners to adjust temperatures. Turns controls to regulate air pressure or vacuum processing in molds. Adjusts stops and guides that control indexing and positioning of glass rods in machine units to correct alignment or timing of sequence. Swabs molds with lubricant to prevent glass from adhering to mold walls. Replaces defective air and gas lines and tubes, using handtools. Inspects bulbs for color or transparency, size, shape, and wall thickness, using color panels, templates, and dial indicators.
GOE: 06.02.13 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

575.382-022 GLASS-ROLLING-MACHINE OPERATOR (glass mfg.)
Sets up and operates automatic machine to roll molten glass into sheets: Positions glass-rolling machine between glass-melting tank and lehr, using power winch. Connects drive chains to rollers and cooling pipes to waterlines, using handtools. Ignites burner to preheat lip (refractory bridge that supports flow of molten glass from furnace to rollers) and raises knife gate on tank orifice to start flow of molten glass over lip onto rollers. Raises or lowers upper
to regulate thickness of glass and adjusts rheostat control to regulate ma
speed. Examines sheet of glass for defects, such as blisters and surface
sions. Monitors gauges and recorders and records readings, such as lehr
veyor and machine speeds, water temperatures, and rate of glass flow.
GOE: 06.02.13 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

**575.382-026 RETORT-OR-CONDENSER PRESS OPERATOR (bric
tile)**
Operates mechanical or hydraulic press to mold fire-clay retorts or cond
ers used in smelting zinc ores: Packs plastic mixture of fire-clay into mo
press and closes mold. Pulls lever to actuate ram which forces clay int
parts of mold. Removes molded retort or condenser from press. Places pr
tive jacket around retort or condenser, and puts it into drying chamber for
soning.
GOE: 06.02.17 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

575.461-010 CONCRETE-STONE FABRICATOR (concrete prod.)
Casts mixture of concrete and aggregate in mold to form plain or decor
structural panels according to specifications and approved samples: Fits wo
sides of mold together and fastens them in place with wood clamps and
using power wrench. Sprays or brushes acid and oil solution on inside of
to prevent concrete from adhering to mold and to retard setting of conc
Shovels and spreads mixed concrete and facing aggregate into mold and ta
mix with pneumatic vibrator to distribute facing evenly and to form facin
required thickness. Positions and fastens reinforcing materials, such as
rods, wire mesh, hanger plates, and hoisting hooks in mold by hand, follo
specifications, using rule, gauges, wrenches, and wood clamps. Places
chain hooks in position on hopper filled with concrete backing mixture
moves controls of hoist to lift and position hopper over mold. Pushes
lever of hopper to release backing mixture into mold and tamps mixture
pneumatic vibrator. Puddles and levels off casting, using wooden screed,
smooths surface with trowel. Unbolts wood clamps, using power wrench,
removes sides of mold by hand. Inserts overhead crane hooks in hoisting
and presses hoist control buttons to lift casting and strikes mold, using ru
hammer, to separate casting from mold. Lowers casting onto skids and tr
ports castings to storage area, using hydraulic lift truck. Brushes and scr
concrete from sides and bottom of mold preparatory to next casting. May
colored floor and roof slabs, highway dividers, ornamental flower pots,
grave markers.
GOE: 06.02.30 STRENGTH: H GED: R3 M2 L2 SVP: 7 DLU: 77

**575.462-010 AUGER PRESS OPERATOR, MANUAL CONTROL (b
& tile)**
Operates auger-press to press clay products, such as sewer pipe, drainp
and flue tile from tempered clay: Installs and adjusts extrusion dies, co
rings, formers, and cutoff knives according to type of product, using handto
calipers, and ring gauge. Moves levers to adjust automatic oilers. Starts p
that forms, extrudes, and cuts clay to specified shape and length. Meas
product for conformance to specifications, using scale and calipers. May m
lever to position extruded tile or pipe column for cutting by DIE TRIPP
(brick & tile). May direct DIE TRIPPER (brick & tile) to change press d
May be designated according to product pressed as Drain-Tile-Press Oper
(brick & tile); Flue-Tile-Press Operator (brick & tile); Sewer-Pipe-Press Op
tor (brick & tile).
GOE: 06.02.08 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

575.565-010 LINING-MACHINE OPERATOR (concrete prod.)
Tends machine that spins steel cylinder as inner surface is coated with c
crete mortar to make reinforced concrete pipe: Lifts and rolls cylinder onto
cradle of machine, using hoist, and aligns hot air blower with cylinder openi
Starts machine which rotates cylinder and signals BUCKET OPERATOR (c
crete prod.) to feed mortar into rotating cylinder. Starts blower which vapori
and removes moisture from mortar as cylinder spins. Stops machine when in
surface of cylinder is lined with layer of mortar. Slides rod through interlock
metal ends of lifting straps and moves cylinder to storage area, using hoist.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

**575.662-010 DRY-PRESS OPERATOR (brick & tile) alternate titl
molder, machine**
Operates machine to press dry tempered clay or silica into brick and ot
shapes: Selects and installs upper and lower pressing dies, using rule and ha
wrenches. Starts machine and observes flow of clay and pressing proce
Measures brick with set-limit gauge and turns handwheel to adjust die.
moves bricks from press bed and stacks bricks in specified pattern on kiln
Signals LABORER, GENERAL (brick & tile) to move loaded car and bri
up empty car. May be designated according to material pressed as Clay-D
Press Operator (brick & tile); Silica-Dry-Press Operator (brick & tile).
GOE: 06.02.17 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

**575.662-014 YARDAGE-CONTROL OPERATOR, FORMING (gla
mfg.)**
Controls temperature of bushings and speed of winders on fiberglass formi
machines to maintain specified yardage per pound in sliver: Monitors bushi
control panels, temperature charts, and indicators to determine if temperatu
of furnace bushings, molten glass over bushings, forehearths, and canals me
specifications. Obtains test skein of sliver from TEST-SKEIN WINDER (gla
mfg.) and dries skein for specified time in electric furnace. Weighs dried te

skein to obtain weight in grams and converts weight to yards per pound to determine deviations from specifications, using yardage conversion chart. Turns digital dial on bushing control panel to regulate temperature of bushings. Tests voltage on compensator units that vary speed of collets (winding rings), using voltage meter. Determines bushing temperature specified for voltage reading from table and turns button to set temperature and regulate speed of collet. Records data, such as shift, crew, date, time of temperature reading, time of yardage reading, type of sliver produced, temperatures, and adjustments made, in yardage control log.
GOE: 06.02.13 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

575.664-010 CENTRIFUGAL SPINNER (concrete prod.) alternate titles: feeder operator; spinner, concrete pipe
Performs any combination of following tasks to coat concrete pipe in metal molds: Slides prepared wire mesh cage into mold and secures cage with short lengths of wire. Places cotton rope gasket between flanges along length of split mold. Bolts mold halves together and fastens bell ring and guide wheels into place, using hand and power wrenches. Signals operator of hoist or industrial truck to transfer mold onto wheels of spinning machine. Starts spinning machine and adjusts controls of filling machine to feed wet concrete into spinning mold, to specified level. Increases speed of rotating mold for specified length of time to set concrete. Pushes pole and brush against inside of spinning pipe to finish surface. Signals worker to move mold to curing area or uses chain hoist. Covers mold with plastic tarpaulin and turns on steam to cure concrete. Removes, cleans, and oils mold when concrete is cured, using hand and power wrenches and brushes. May adjust filling machine to accommodate size of pipe, using handtools.
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

575.665-010 CONCRETE-PIPE-MAKING-MACHINE OPERATOR (concrete prod.)
Tends machine that casts concrete draintile or pipe by either of following methods: (1) Positions metal mold specified for pipe size on floor stand of machine beneath core and spout. Lowers core into mold and pulls overhead tamping bar into position in mold. Starts machine to rotate mold and activate tamping bar. Releases supply of wet concrete from hopper into mold. Trowels concrete at top of filled mold to level off end of pipe. Stops machine for removal of mold by PIPE STRIPPER (concrete prod.). (2) Positions and bolts pallet rings specified for pipe size to turntable and bottom of feed table. Positions and screws packer head on drive shaft. Resets trip lever to adjust feed table height. Starts machine which lowers packer head into mold and conveys supply of concrete to feed table. Rakes concrete from feed table into mold as packer head rises and descends to tamp concrete in mold. Steps on pedal to rotate turntable for automatic removal of filled mold and positioning of empty mold. Feels concrete and signals worker to increase or decrease moisture of mixture. May be designated according to type of product made as Drain-Tile Machine Operator (concrete prod.); or according to type of machine tended as Packerhead-Machine Operator (concrete prod.).
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

575.665-014 DIE TRIPPER (brick & tile) alternate titles: greaser
Tends machine that cuts extruded tile or pipe clay column to specified lengths: Swabs press die with oil between operations to prevent adhesion of clay. Moves levers in coordination with movements of machine and AUGER PRESS OPERATOR, MANUAL CONTROL (brick & tile) to form bell or socket of pipe and to cut it to size. May change press dies.
GOE: 06.04.17 STRENGTH: M GED: R2 M2 L1 SVP: 2 DLU: 77

575.665-018 SHOT-COAT TENDER (concrete prod.)
Tends machine that coats external surface of rotating steel cylinder with concrete mortar to make reinforced concrete pipe: Pulls lever to open chucks of machine and signals worker to position cylinder between chucks. Closes chucks to secure cylinder for spinning and presses button to rotate cylinder and move it along track at preset rate. Moves lever to regulate flow of mortar between revolving brushes or into space between two parallel moving belts which compress mortar and spray or throw mortar onto exterior of rotating cylinder moving along track. Stops machine, releases chucks, and signals INDUSTRIAL-TRUCK OPERATOR (any industry) to remove mortar coated cylinder to curing area.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

575.682-010 FIBERGLASS-DOWEL-DRAWING-MACHINE OPERATOR (plastic prod.) alternate titles: solid-glass-rod-dowel-machine operator
Sets up and operates fiberglass drawing machine to form fiberglass dowels: Mounts specified dies in soak tank and curing tables, using handtools. Sets stop at end of curing table, according to specified length of dowel, and turns switches to start electrical heating units along curing tables. Pours specified amounts of resin and catalyst into mixer, starts mixer, and pours mixture, after specified period, into soak tank. Mounts spools of fiberglass roving on spindles, draws strands through guides into soak tank, and starts ends of resin soaked fibers through preform die. Attaches fiberglass strands to end of previous dowel, or ties strands to wire, and draws fibers through diameter control tube. Starts motor to draw fiberglass through soak tank, preform die, diameter control tubes, and curing oven. Saws off cured dowels at specified length or removes dowels cut by automatic cutoff saw. Observes color and shape of dowels for conformance to standards. Adjusts controls to regulate temperature of oven and drawing speed to obtain conformance to standards.
GOE: 06.04.13 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

575.682-014 MOLDING-MACHINE OPERATOR (toy-sport equip.)
Operates press to cast resined glass into glass bows: Cleans molds and applies wax to mold, using swab. Cuts glass from winder reel and places glass into mold to fill mold as specified. Pulls top mold and press down into position. Opens press and removes bow. May keep production records.
GOE: 06.02.18 STRENGTH: M GED: R3 M1 L1 SVP: 4 DLU: 77

575.682-018 PRESS OPERATOR (brick & tile)
Operates machine to press clay into products, such as wall tile, trim tile, and mosaic floor tile: Feels consistency of clay in hopper to determine that mixture meets texture and dampness specifications. Fills feedbox, shaker box, and die cavity with clay. Levels and removes excess clay from die, using cutting stick. Depresses pedal, moves lever, or turns handwheel to lower top die and press out product. Removes product from die and measures thickness, using gauge. Adjusts press to obtain product of specified thickness. Cleans and oils die cavity and adjusts fettling tools on off-bearing belt. May tend automatic hydraulic press that presses clay into products.
GOE: 06.02.08 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 78

575.682-022 RAM-PRESS OPERATOR (pottery & porc.)
Sets up and operates hydraulic ram press to form ware: Positions hydrostone (plaster) die on bed of press, using hoist. Clamps upper and lower halves of die to ram and bed of press. Connects airhose to die. Aligns die, using pins, jacks, and measuring device. Cuts pugged (plastic) clay to specified size and places clay on die face. Presses control to lower ram to shape ware. Depresses pedal to force air through die and release ware from bed of press. Moves control to raise ram and release ware from die. Holds setter under ram to allow ware to drop on setter as it is released. Inspects ware for specified thickness and adjusts position of die if necessary. Sponges die to remove moisture and removes scrap clay, using knife. May turn controls to adjust length and timing of ram stroke according to type ware pressed.
GOE: 06.02.08 STRENGTH: M GED: R3 M2 L1 SVP: 5 DLU: 77

575.683-010 BUCKET OPERATOR (concrete prod.)
Operates track-mounted machine, equipped with traveling pouring bucket, to cast reinforced concrete pipe: Moves lever to position bucket under hopper of cement buggy to receive cement. Pulls levers and turns handwheels to move machine along track, and to pour cement from bucket into rotating metal pipe (can) which acts as a mold and remains as reinforcement. Observes interior of can and withdraws bucket when concrete is level with lip of mold ring. Washes bucket, using water hose.
GOE: 06.04.40 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

575.684-010 BATTER-OUT (pottery & porc.) alternate titles: batter
Prepares clay for forming into pottery and porcelain ware by either of following methods: (1) Pulls chunk of clay from large roll or picks up clay slab cut by machine. Centers clay on rotating horizontal wheel and pulls lever to lower tool that flattens clay and forms bat. Throws bat onto jigger mold and pulls lever to lower tool that spreads clay firmly over mold. (2) Shapes clay into ball by hand and throws clay into jolly mold used in making such hollowware as cups and bowls.
GOE: 06.04.30 STRENGTH: M GED: R2 M1 L2 SVP: 4 DLU: 77

575.684-014 CASTER (pottery & porc.) alternate titles: pourer
Casts pottery and porcelain ware in plaster of paris molds: Fills molds with slip (semiliquid clay), using hose from slip supply tank, or bucket. Pours excess slip from molds when accumulation of clay around inside of mold opening indicates clay shell inside mold has built up to specified thickness. Changes position of molds to produce uniform shell thickness of irregularly shaped items. Places molds upside down to drain. Trims excess clay from inside mold opening, opens mold, and removes green casting when experience and observation of shell indicate casting is firm enough to handle. Smooths casting surfaces to remove mold marks, using knives and wet sponge, and places castings on boards to dry. May attach handles [HANDLER (pottery & porc.) 774.684-022].
GOE: 06.02.30 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 81

575.684-018 CASTER (nonmet. min.)
Casts plaster of paris objects, such as ashtrays, piggybanks, lamps, figurines, and statuary, using prepared molds: Assembles sections of prepared mold and secures them together with cord, clamps, or bolts, and nuts. Dumps plaster of paris into container, adds specified amount of water, and stirs mixture to required consistency to make casting, using spatula. Inserts wires and tubing into mold to reinforce casting when necessary. Pours plaster of paris into mold, shakes mold to distribute layer of plaster of paris on inside of mold and pours off excess mixture. Repeats process after each layer hardens until specified thickness of casting is attained. Disassembles mold, fills holes and defects in casting with plaster of paris, and smooths surface of casting, using scraping tool and sandpaper.
GOE: 06.02.30 STRENGTH: H GED: R2 M1 L1 SVP: 4 DLU: 77

575.684-022 CROSSCUTTER, ROLLED GLASS (glass mfg.)
Cuts continuous glass sheet into specified lengths as sheet emerges from drawing or rolling machine and removes defective cross sections, using suspended cutting wheel: Pulls lever to lower cutting wheel. Draws cutting wheel along template across surface of moving glass sheet to divide sheet into specified lengths. Observes sheet for defects, such as scratches, stones, bubbles, and pits, and draws cutting wheel across sheet to remove defective cross sections.

GOE: 06.04.30 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

575.684-026 GATHERER (glass mfg.) alternate titles: ball maker
Dips punty (metal rod used to gather molten glass) or blowpipe into tank furnace to gather gob (lump) of molten glass for further processing: Reads product specifications to determine size of gob of molten glass to be gathered. Immerses head of punty or blowpipe into molten glass in furnace and turns punty or blowpipe to gather gob of molten glass. Twirls punty or blowpipe and blows through blowpipe to maintain gob of molten glass in globular form. Hands punty to PRESSER (glass mfg.) 575.685-074 or blowpipe to GLASS BLOWER (glass mfg.) 772.381-022 for further processing. May twirl gob of molten glass in container of alkali solution or in cavity of wet wooden block to form thin skin on gob of molten glass to prevent punctures in glassware during pressing or blowing. May hold punty in mold while PRESSER (glass mfg.) cuts off required amount of glass. May make head of punty from clay. May reheat gob to retain shape and temperature.
GOE: 06.04.30 STRENGTH: M GED: R2 M1 L2 SVP: 5 DLU: 79

575.684-030 HANDLE MAKER (pottery & porc.)
Forms handles for clayware by either of following methods: (1) Pours slip (semiliquid clay) into mold. (2) Cuts pugged clay (plastic clay) to specified size, and places into segmented mold. Assembles and presses mold segments together by hand. (3) Opens valve of supply line (hose) and fills mold with slip. Places mold on drying rack. Opens mold and removes hardened handle. Trims and scrapes handles to remove excess clay, using knife. Cleans molds with airhose.
GOE: 06.04.30 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

575.684-034 LAUNDRY-TUB MAKER (concrete prod.)
Forms tubs, using molds: Places wooden bottom section of mold on raised assembly-line track by hand. Sets core in position on bottom mold section and places metal rim around base. Fastens end and side sections of wooden (metal lined) mold together around core and to bottom section, using clamps and bolts. Binds assembled mold sections together with metal band, using ratchet-lever banding device and crimping pliers. Mixes concrete according to standard formula. Dumps concrete into wheelbarrow and pushes it to prepared molds. Shovels wet concrete into mold and tamps concrete, using tamper. Pushes metal drain fitting through wet concrete against core, or places drain fitting in core before shoveling concrete into mold. Smooths top of concrete, using trowel. Disassembles mold from partially cured casting and sprays completed tub with calcimine. May clean and oil mold sections. May crate finished tubs for shipment.
GOE: 06.02.30 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

575.684-038 MOLD MAKER, TERRA COTTA (brick & tile)
Forms plaster molds used to shape terra cotta blocks: Fills wooden form with clay and slides template over clay surface to make model of face, end, and side of block. Brushes oil over hardened model and mixes and pours plaster over model to make mold. Assembles hardened plaster molds of face, ends, and sides, and seals joints with plaster to form block mold.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

575.684-042 MOLDER, HAND (brick & tile; elec. equip.)
Molds odd-shaped brick, pipe, and other refractory products, using hand-molding tools: Kneads gobs of clay or silica mud to form molding mixture. Obtains specified mold from storage, or assembles molds, when necessary according to specifications. Brushes mold cavity with oil or hot wax to prevent casting from sticking to mold. Packs molding mixture into mold and tamps it with hand or automatic tamper. Removes excess mixture from top of mold, using wire or straightedge. Lifts and overturns mold on steel pallet to remove product. Finishes and smooths product, using hand-molding tools. Throws sand on casting to prevent bonding during subsequent firing. Stamps identifying code on product. Cleans and oils used molds. May tend pug mill that mixes clay or silica mud to form molding mixture. May place molds in furnace to cure. May stamp surface of refractory products, prior to curing, to impart specified pattern, using handtool. May embed heater coils wound through ceramic heaters with mud, and bake units to dry mud and be designated Embedder (elec. equip.). May be designated according to product molded as Brick-Molder, Hand (brick & tile); Pipe-Fittings Molder (brick & tile); Pot Maker (brick & tile); Shape-Brick Molder (brick & tile); Tile-Molder, Hand (brick & tile); or according to material used as Adobe Maker (brick & tile); Soft-Mud Molder (brick & tile).
GOE: 06.02.30 STRENGTH: H GED: R3 M1 L1 SVP: 3 DLU: 87

575.684-046 TERRAZZO-TILE MAKER (brick & tile)
Molds pulverized marble, metallic oxides or pigment, cement, and water in specific pattern to form terrazzo tile: Mixes colored marble and metallic oxides with cement and water to prepare molding mixture. Inserts pattern in mold and applies layer of colored mixture over surface in sections of pattern to form design of tile face. Removes pattern and sprinkles mixture of dry cement and sand on mold to absorb moisture. Fills remainder of mold with wet cement and sand to form tile backing. Draws straightedge across top of mold to remove excess cement. Places block on mold and compresses tile in hydraulic press to obtain smooth surface on tile face. Removes mold from press and separates tile from die. May coat surface of die with oil to prevent tile from adhering to die.
GOE: 06.04.32 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

575.684-050 CULTURED-MARBLE-PRODUCTS MAKER (stonework)
Casts and molds cultured marble products, such as sink basins and wall panels: Calculates amount of material, such as ground marble, resin, and catalyst, needed to make products, utilizing specifications on work order. Weighs materials, using scales, and pours materials into mixing machine. Pours specified amount of material into pail, adds color, and mixes ingredients to impart color to products, using wood paddle. Applies wax to mold sections to facilitate separation of products from molds, using cloth. Assembles cast, using bolts, and attaches sink mold to cast, using clamps. Sprays smoothing agent on mold and cast prior to pouring material. Pours material from mixing machine into cast on vibrating table, and applies colored mix randomly to material to impart marble appearance to product. Positions sink mold on previously cast product, and applies layers of mix by hand to form sinks. Disassembles mold, using handtools, and places products on racks for curing. Trims *flash* from molds, using portable sander or grinding wheel. Polishes surfaces of products to remove blemishes, using pumice and powered polisher.
GOE: 06.02.30 STRENGTH: H GED: R3 M2 L3 SVP: 5 DLU: 86

575.685-010 ABRASIVE-WHEEL MOLDER (nonmet. min.) alternate titles: molder
Tends hydraulic press that molds synthetic abrasive disks, hones, and grinding wheels: Selects mold parts according to size and thickness of wheel desired, and assembles parts to form mold. Weighs out specified amounts of abrasive compound and adhesive or activates automatic hopper that dumps specified quantity of abrasive mix into pan, pours compound into mold on rotating turntable, and inserts bushings and hubnuts in center of mold to form wheel. Places top plate on mold, positions mold in press, and turns valves and levers to close press and start pressing cycle. Removes pressed wheels from mold and places wheels on bats (plate) for drying in kilns. May stamp or mark code numbers on pressed wheels. May mix grit, resin, and clay to form abrasive compound, using mixing machine. May be designated according to type of abrasive used as Diamond-Wheel Molder (nonmet. min.); Emery-Wheel Molder (nonmet. min.).
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 78

575.685-014 BLOCK-MAKING-MACHINE OPERATOR (concrete prod.) alternate titles: block maker
Tends automatic machine that casts concrete blocks: Starts and stops machine that automatically fills molds, vibrates molds to compact wet concrete, scrapes off excess concrete, and strips finished blocks from molds. Guides hoist to transfer pallets loaded with blocks to curing racks. May assist in setting up machine. May tend machine equipped with automatic off-bearing mechanism. May verify dimensions of formed blocks, using template.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L1 SVP: 4 DLU: 79

575.685-018 CHALK-EXTRUDING-MACHINE OPERATOR (pen & pencil)
Tends automatic extruding machine and cutter that extrude and cut to length chalk billets: Loads billet into extrusion die, locks die in place, and starts machine that automatically forces billet through die onto cutting table. Places extruded chalk under cutter and depresses pedal to cut chalk to specified length.
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

575.685-022 CHALK-MOLDING-MACHINE OPERATOR (pen & pencil)
Tends machine that mixes and molds ingredients, using molding table, to make writing chalk: Weighs plaster, dyes, and other materials, according to formula. Places material in agitator and starts machine to mix ingredients. Pours mixture on molding table and smooths it over inlaid holes, using paddle. Pushes ejector button to remove hardened chalk from holes. May be designated according to materials molded as Crayon-Molding-Machine Operator (pen & pencil).
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

575.685-026 DIE PRESSER (pottery & porc.) alternate titles: former; press operator; tube-machine operator
Tends screw, mechanical, or hydraulic press that forms clay into electrical porcelain ware, such as insulators: Inserts die into bed of press. Pours moist, pulverized clay or ceramic powder into hopper of press. Starts press which deposits clay in die and lowers ram to form ware. Removes formed ware from die cavity and places ware on board for firing. May tend one or more presses that automatically form insulators. May inspect fired products to ensure conformance to specifications, using micrometer, go-not-go gauge, and microscope.
GOE: 06.04.08 STRENGTH: L GED: R3 M2 L1 SVP: 3 DLU: 77

575.685-030 FIBER-MACHINE TENDER (glass mfg.) alternate titles: forming operator; sliver former; sliver handler
Tends one or more machines that form fiberglass filaments from molten glass and combine filaments into sliver: Pulls fiberglass filaments extruded through *bushing* over sleeve where binding solution is applied and into groove of graphite shoe that binds filaments into single strand of sliver. Passes sliver strand through opening in floor to FLOOR WINDER (textile) on floor below who winds sliver onto tubes. Patrols and observes bushings to detect defects, such as clogged bushings, beads, bead straps, and defective binder applicators. Stops machine and removes beads or bead straps from bushing with wire pick to unclog bushing. Notifies YARDAGE-CONTROL OPERATOR, FORMING (glass mfg.) or FORMING-MACHINE ADJUSTER (glass mfg.) of defective product or machine operation. Turns petcocks to adjust flow of binding fluid to sleeves. May turn rheostat to obtain specified temperature in electric furnace where glass is melted. May fill furnace hopper with glass marbles and adjust feed mechanisms so that marbles enter furnace at specified rate. May be designated according to length and fineness of fibers produced as Staple-Fiber-Machine Tender (glass mfg.).

GOE: 06.04.13 STRENGTH: L GED: R3 M1 L1 SVP: 3 DLU: 77

575.685-034 FLOWER-POT-PRESS OPERATOR (pottery & porc.) alternate titles: pot-press operator

Tends power press to form clay flowerpots: Fastens shaping die of specified size and shape on press and adjusts ram travel, using handtools. Throws ball of plastic clay into female die and presses switch to lower shaping die into clay and form pot. Lifts pot from die and places pot on ware board, using tongs.
GOE: 06.04.17 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

575.685-038 FORMING-MACHINE TENDER (glass mfg.) alternate titles: bottle-blowing-machine tender; press-and-blow-machine tender

Tends automatic glass forming machines, used to form bottles, containers, and other glassware from molten glass: Turns valves to regulate temperatures of molten glass in forehearth, flow of glass to forming machine, and coolant to solidify glass shape. Lubricates molds with graphite solution to prevent glass sticking to molds, using swab or spray gun. Inspects glassware to ascertain conformance with specifications, using fixed gauges and scales. May correct timing sequence by adjusting *timer drum*. May tend annealing lehr used to control cooling of formed product [LEHR TENDER (glass mfg.)].
GOE: 06.02.08 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

575.685-042 HOT-PRESS OPERATOR (nonmet. min.)

Tends hydraulic press that presses fiberglass cutouts into outer sides of grinding wheels: Picks up cloth cutout from supply stack and places it on steam-heated press table. Picks up grinding wheel from supply stack and positions it on cloth cutout. Picks up another cloth cutout and places it on grinding wheel. Presses electric switch to start machine that presses cloth cutouts into sides of wheel between press table and steam-heated plate. Removes grinding wheel from machine and places it on stack of finished workpieces.
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

575.685-046 HYDRAULIC-BILLET MAKER (pen & pencil)

Tends hydraulic press that forms chalk billets: Scoops mixed ingredients into mold, closes cap, and pulls lever to pressurize ingredients. Releases cap and places billet on table for extrusion. Turns valve to regulate pressure.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

575.685-050 LEAD FORMER (pen & pencil) alternate titles: lead presser

Tends hydraulic press that extrudes graphite mixture to form pencil leads: Scoops mixture of clay, graphite, and other materials from pot and pours it into cylinder of machine. Pounds material to compact it in cylinder to eliminate air bubbles, using wooden mallet. Turns valve and observes dial to supply prescribed hydraulic pressure to ram. Starts machine that activates ram to force mixture through extrusion dies. May cut leads into specified lengths after they are extruded, dried, and deposited on machine table, using knife.
GOE: 06.04.19 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

575.685-054 LENS-MOLDING-EQUIPMENT OPERATOR (glass mfg.) alternate titles: glass bender; glass sagger; lens molder; punch press operator

Tends molding press or mold heating equipment to form lenses, such as speedometer and instrument faces or automotive lenses, such as taillights from glass rods, sheets, or disks: Forms lenses by either inserting heated glass rods in press mold and activating ram to press shape, or placing glass disks, preformed or cut from sheet, in mold and inserting mold in furnace to melt glass to shape of mold. May place weights on glass in mold to prevent warping during cooling. May preheat glass in oven to improve workability.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

575.685-058 MARBLE-MACHINE TENDER (glass mfg.)

Tends machine that automatically forms marbles of varying colors and sizes from molten glass: Adjusts flow of molten glass, temperature of cooling system, and size of automatic cutoff. Starts machine that cuts off glass lumps and drops them between rollers to form spheres.
GOE: 06.04.13 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

575.685-062 MOLDER-MACHINE TENDER (nonmet. min.)

Tends machines that heat and mold slurry into pipe and boiler coverings: Presses button on control panel of each molding machine to lower mold and activate hopper that automatically heats slurry, fills molds with slurry, and molds slurry into pipe and boiler coverings. Presses buttons on panels to raise finished moldings from machine and off bears moldings by hand. Discards defective moldings. Scrapes excess slurry from molds, using wooden blocks. Records type and quantity of moldings processed.
GOE: 06.04.17 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

575.685-066 MOLDER, FIBERGLASS LUGGAGE (leather prod.)

Tends laminating press that molds fiberglass preforms into luggage cases. Places preform in machine mold and pours specified amount of pigmented bonding solution into center of preform. Starts machine to lower rubber press onto preform and to apply heat and pressure for specified time. Opens gate and removes molded article.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

575.685-070 PRESS OPERATOR (mine & quarry)

Tends machine that compresses several plates of built-up mica into single plates of specified thickness: Inserts specified number of mica plates into each compartment of machine. Moves lever to close and seal door to machine compartments. Turns valves to circulate steam through machine to make plates pliable, activate ram that compresses pliable plates together, and to circulate water through machine to cool and harden compressed plates. Removes compressed plates from machine compartments.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

575.685-074 PRESSER (glass mfg.)

Tends press mold to cast glassware from molten glass: Cuts gob of molten glass from punty (metal rod used to gather molten glass), using hand shears, and allows gob of molten glass to drop into mold. Adjusts tension spring on mold plunger to regulate plunger pressure, using handtools. Positions mold against preset stops under plunger, pulls lever that lowers plunger into mold forcing molten glass to fill spaces in mold, and withdraws plunger from mold after specified time. Opens mold and removes ware, using pincers.
GOE: 06.04.30 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

575.685-078 SYNTHETIC-GEM-PRESS OPERATOR (jewelry-silver.)

Tends automatic press that molds pellets for use as synthetic gems: Installs die in press with handtools and loads hopper with pellets. Starts machine and observes that pellets are pressed into gems of specified size and shape. May mix ingredients from which pellets are made. May assist in polishing finished gems.
GOE: 06.04.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

575.685-082 TEST-SKEIN WINDER (glass mfg.) alternate titles: frickertron checker

Tends fiberglass forming and winding machines to obtain sample skeins of sliver used in testing yardage per pound: Inserts cord of timing instrument into wall outlet near machine from which sample is taken and releases pedal to start machine. Places arm of timing device against strands of sliver and pushes button to start timer. Stops winder after specified time and removes takeup tube. Removes test skein from tube and hangs skein on board designated for each furnace and *bushing*. Carries skeins to YARDAGE-CONTROL OPERATOR, FORMING (glass mfg.) for testing when sufficient skeins are obtained.
GOE: 06.04.16 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

575.686-010 DRY-PRESS-OPERATOR HELPER (brick & tile)

Assists DRY-PRESS OPERATOR (brick & tile) in pressing dry tempered clay or silica into brick or other shapes: Removes pallets loaded with brick and replaces empty pallets in position to receive brick from press. Places loaded pallets in rack of car. Removes defective pallets for repair. Removes bricks from molds, and places bricks on kiln car in specified pattern. Throws sand on bricks to level tiers. Moves rack or kiln cars into position near press and moves loaded cars away from press. Fills hoppers with sand and other material. Cleans press, dies, tables, and press pits, using handtools, shovels, and brooms. Performs other duties as described under HELPER (any industry) Master Title. May be designated according to materials pressed as Clay-Dry-Press Helper (brick & tile); Silica-Dry-Press Helper (brick & tile).
GOE: 06.04.17 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

575.686-014 MOLDER HELPER (optical goods) alternate titles: feeder

Feeds optical glass squares into furnace to heat glass to prescribed state of plasticity for molding: Spreads or sprinkles refractory powder on furnace floor or tray, by hand, to prevent adherence of heated glass to floor or tray. Positions glass squares on tray and slides tray into furnace, using paddle, or places squares on slide which automatically feeds squares into furnace and spaces them on furnace floor.
GOE: 06.04.13 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

575.686-018 PIN MAKER (pottery & porc.)

Feeds clay into hopper of machine that automatically forms potter pins used to support clayware during firing. Places formed pins in drier. May change die on machine according to size and shape of pins to be formed.
GOE: 06.04.17 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

575.687-010 BALCONY WORKER (glass mfg.) alternate titles: platform worker

Performs any combination of following duties to process molten glass into continuous sheet under direction of DRAWING-KILN OPERATOR (glass mfg.): Observes continuous sheet of glass for scratches, breaks, and other blemishes as it passes through rolls of drawing kiln. Wipes foreign matter from rolls and adjusts roll weights to minimize surface defects and breaks in glass. Moves controls to open rolls of drawing kiln when signaled by DRAWING-KILN OPERATOR (glass mfg.) to allow passage of stones and prevent breaks in glass. Opens air jets or draws metal rod across hot sheet of glass to prevent breaks from running. Adjusts slides on air ducts to cool glass and minimize warping. Clears broken glass from rolls. May transport cullet from work area to storage area, using handtruck.
GOE: 06.04.13 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

575.687-014 FORMING-MACHINE UPKEEP-MECHANIC HELPER (glass mfg.) alternate titles: mold changer

Assists FORMING-MACHINE UPKEEP MECHANIC (glass mfg.) in setting up and repairing bottle-forming machines and lubricates feeder chutes and molds: Removes and replaces glass-forming molds and components and adjusts shears and orifice rings (furnace channel opening), according to instructions, using handtools. Swabs or brushes feeder chutes and molds with oil or compound to prevent molten glass from sticking. Lubricates machine parts, using oilcan. Transfers molds to and from mold repair shop, using handtruck. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 06.04.13 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

575.687-018 LABORER, PRESTRESSED CONCRETE (concrete prod.)
Performs any combination of following duties involved in preparing forms and pouring concrete to make prestressed structural beams: Cleans forms, using hammer, scraper, and brush, and sprays form with oil to prevent adhesion of concrete. Places reinforcing steel cage in form, using power winch. Pushes stressing cables through form, threads ends through guide holes in end plates, and clamps end of cables to plate. Tightens nuts at base of form with power wrench, and inserts spacer bars and locking pins at intervals along top of form to maintain specified dimensions of form. Clamps vibrators in holders on sides of forms. Lays planks on protruding ends of spacer bars to make elevated walkway on both sides of form. Lifts four-wheeled pouring buggy into position on walkway, using winch. Lifts belt conveyor into position between pouring buggy and ready-mix truck with winch and bolts it to truck, using power wrench. Starts conveyor and vibrators. Shovels sample of concrete into cannisters and tests consistency of concrete, using cone-shaped mold and trowel. Pushes pouring buggy along walkway to follow ready-mix truck. Settles concrete at top of form with hand vibrator, and fills low spots with concrete taken from conveyor. Removes forms from cured beams, using handtools, and cuts protruding end of stressing cable, using oxyacetylene torch. Lifts beam, using four-wheeled portable hoist (hoisting buggy), and moves hoist to yarding area by hand or with truck. May prepare forms and cast concrete lintels.
GOE: 06.04.34 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 78

575.687-022 MAT INSPECTOR (concrete prod.)
Examines mat of fiberglass insulation material for defects, picks out spots and foreign matter, and cuts out nonstandard portions: Scans mat for defects as mat passes inspection station of mat machine and picks out grease and binder spots and foreign matter, using knife. Lowers blade to cut thick or thin spots of mat that fail to meet standards. Records defect and mat machine downtime on production records. Aids MAT-MACHINE OPERATOR (concrete prod.) in guiding mat under pressure rollers, over inspection light and slitting knives, and under automatic cutters.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

575.687-026 PIPE STRIPPER (concrete prod.)
Moves metal molds containing wet concrete from pipemaking machine to steam-cooking area, using industrial truck or handtruck, and removes mold from concrete: Hooks pickup arms attached to frame of handtruck under lugs on sides of standing metal mold, and lifts and removes filled mold from pipemaking machine. Pushes truck to steam-cooking area and lowers mold to standing position on floor. Unclamps and removes mold halves by hand. Places mold halves around metal bottom stand and snaps clamps shut to reassemble mold. Places empty mold on floor near CONCRETE-PIPE-MAKING-MACHINE OPERATOR (concrete prod.). Shovels spilled concrete into return hopper or floor opening.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

575.687-030 PRESS-PIPE INSPECTOR (brick & tile) alternate titles: green-pipe inspector
Examines green sewer pipe for defects: Scans and feels exterior and interior of sewer pipe for blisters, cracks, or hollow areas. Marks unsatisfactory pipe, using chalk. May count rejected pipe sections.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

575.687-034 INSPECTOR I (pottery & porc.)
Examines automatically cast toilet bowls for molding defects: Moves toilet bowls from casting and drying area to inspecting area, using handtruck. Examines exterior and interior surfaces of bowls for defects, such as shape distortion, chips, or cracks. Marks defective bowls to indicate type and location of defects, using marking pencil. Applies glaze to specified areas of bowls, using paint brush, to prevent cracking during subsequent finishing. Records number and types of defects on product identification tags for inventory and production records. Places boards on roller conveyor to support bowls, positions bowls on boards, and pushes inspected bowls along conveyor for further finishing. Returns defective bowls to casting area for reworking.
GOE: 06.03.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 86

575.687-038 TIP-OUT WORKER (concrete prod.)
Removes concrete pipes from steam-curing chamber, with assistance of another worker, using hydraulic lifting device: Presses button to activate chain mechanism that conveys kiln cars containing cured pipes from curing chamber into position under lifting device. Presses button to activate lifting device that lowers, grips, and lifts pipes from vertical to horizontal position on kiln car. Strikes metal pallets around bell end of pipes to remove pallet from pipes, using sledgehammer. Rolls pipes from kiln cars onto metal rack to facilitate transporting of pipes to storage yard. Removes couplings that join kiln cars, pushes kiln cars onto chain conveyor, and activates conveyor to return cars and pallets to pipe making section.
GOE: 05.12.04 STRENGTH: V GED: R1 M1 L1 SVP: 2 DLU: 86

579 OCCUPATIONS IN PROCESSING OF STONE, CLAY, GLASS, AND RELATED PRODUCTS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with preparing for market such raw materials as stone, clay, glass, and sand.

579.130-010 SUPERVISOR, BOARD MILL (concrete prod.)
Supervises and coordinates activities of workers engaged in operating e ment to mix plaster slurry, and to roll, perforate, mark, cut, and dry p wallboard and lath. Directs workers in operation of equipment. Performs d as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 81

579.130-014 SUPERVISOR, CONCRETE BLOCK PLANT (con prod.)
Supervises and coordinates activities of workers engaged in mixing conc in setting up, maintaining, and operating concrete-block-making machines equipment, and in curing and storing blocks. Performs duties as described u SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 79

579.130-018 SUPERVISOR, CONCRETE PIPE PLANT (concrete pro
Supervises and coordinates activities of workers engaged in mixing conc setting-up, operating, and maintaining pipe plant machinery and equipment, steam-curing concrete pipe. Performs duties as described under SUPERVIS (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 78

579.130-022 SUPERVISOR, FORMING DEPARTMENT II (glass mfg
Supervises and coordinates activities of workers engaged in batching, mix and melting raw materials to form molten glass, and in extrusion of fiberg sliver: Observes automatic batching, weighing, and mixing equipment, furna and forming machines to detect malfunctions. Reads charts, gauges, and con panels to verify maintenance of specified air supply, gas to air ratio, and t peratures of furnace and *bushings*. Adjusts or repairs malfunctioning mach and furnaces. Performs other duties as described under SUPERVISOR (any dustry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

579.131-010 SUPERVISOR, MIRROR MANUFACTURING DEPAR MENT (glass products)
Supervises and coordinates activities of workers engaged in manufactur mirrors: Mixes solutions for coating mirror glass. Coordinates operation spray coating machine. Inspects completed mirror glass for bevel or cut to v ify quality and quantity specifications. Performs other duties as described un SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

579.132-010 SUPERVISOR II (nonmet. min.)
Supervises and coordinates activities of workers engaged in manufactur asbestos automotive brake linings: Reviews production orders to determine m terial and labor requirements and machine setup. Directs workers to set up, o erate, and tend mixers, ovens, extruders, and grinders. Inspects product in v ious stages of manufacture for conformance to specifications and directs adju ment of machine or change in processing methods as needed. Performs oth duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

579.132-014 SUPERVISOR, LIME (concrete prod.)
Supervises and coordinates activities of workers engaged in crushing, bu ing, grinding, pulverizing, and hydrating limestone to produce hydrated lime f commercial use. Directs workers in operation of equipment. Reviews custom orders and requisitions freight cars or trucks to provide for shipment of produ Performs other duties as described under SUPERVISOR (any industry) Mast Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L2 SVP: 8 DLU: 77

579.134-010 SUPERVISOR, INSPECTION (glass mfg.)
Supervises and coordinates activities of workers engaged in inspecting an testing glass products for conformance to specifications: Schedules test and i spection activities, based on production estimates and job change orders. Trai workers in test procedures. Examines samples of glass products for defect using gauges and micrometers. Reviews test reports and confers with depar ment heads to correct defects revealed by inspection and testing procedure Requisitions supplies and equipment repair. Performs other duties as describe under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

579.134-014 SUPERVISOR, EPOXY FABRICATION (brick & tile)
Supervises and coordinates activities of workers engaged in production o clay sewer pipe junction fittings, and assembly of pipe couplings: Observe pipe preparation, epoxy fabrication, ceramic sawing, coupling assembly, an palletizing of products to ensure workers follow prescribed production method and procedures. Inspects products in all stages of production to detect cracks pipe distortion, or assemblies which do not meet prescribed standards. Confer with supervisor to resolve personnel or production problems. Trains workers i production tasks and evaluates performance. Moves equipment, supplies, o products, using forklift truck. Performs minor repairs or adjustments to equip ment, using handtools. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 86

579.134-018 SUPERVISOR, REFRACTORY PRODUCTS (brick & tile)
Supervises and coordinates activities of workers engaged in production of refractory products, such as brick, slabs, and posts: Trains and observes workers

to ensure job performance meets standards and that safety procedures are followed. Observes operation of machinery and equipment, such as kilns, extruder and mixing machine, to detect malfunctions. Examines extruded clay and shale columns, cut green brick, and fired brick to detect defects and for adherence to production standards. Maintains record of ingredients used in preparing finishing mixture and requisitions ingredients as needed. May assist workers in setting up, operating, and repairing machinery and equipment in department. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R3 M2 L3 SVP: 6 DLU: 86

579.137-010 SUPERVISOR (cement)
Supervises and coordinates activities of workers engaged in processing raw materials used in manufacture of cement: Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L2 SVP: 7 DLU: 77

579.137-014 SUPERVISOR, ASBESTOS TEXTILE (nonmet. min.)
Coordinates activities and supervises workers engaged in processing asbestos fibers into textile materials performing duties described under SUPERVISOR (any industry) Master Title. May be designated according to process supervised as Cardroom Supervisor (nonmet. min.).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L2 SVP: 7 DLU: 77

579.137-018 SUPERVISOR, MOLD CLEANING AND STORAGE (glass mfg.)
Supervises and coordinates activities of workers engaged in cleaning and storing cast iron molds and mold parts used to make glass containers: Examines and feels forming pins, *neck rings*, and inner surfaces of molds for scale, scratches, and nicks. Verifies dimensions of molds after cleaning, using go-not-go gauges. Receives mold change orders for production machines, inspects storeroom for specified molds and notifies mold making department of mold shortages. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 77

579.137-022 SUPERVISOR, MOLD-MAKING PLASTICS SHEETS (plastic-synth.) alternate titles: cell-making supervisor, plastics sheets
Supervises and coordinates activities of workers engaged in sanding, washing, inspecting, and assembling plate glass sheets for use as molds (cells) in casting plastic sheets. Performs duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

579.137-026 SUPERVISOR, RECEIVING AND PROCESSING (glass mfg.) alternate titles: shift supervisor, melting; supervisor, furnace; supervisor, furnace room
Supervises and coordinates activities of workers engaged in unloading, storing, mixing, and melting raw materials, such as sand, soda ash, and cullet, to make molten glass for use in making flat glass, glass containers, optical glass, or glass fibers: Directs unloading of hopper cars, storage of ingredients in bins and silos, and examination of ingredients prior to mixing. Schedules mixing and melting of materials to manufacture particular color and composition of glass. Ensures mixtures are blended to specifications, using knowledge of raw ingredient mixtures for type of glass produced. Reads gauges, charts, and dials to determine if fuel consumption rates, air-to-gas ratios, atmospheric conditions, temperatures, and glass levels in furnace are within specified ranges applying knowledge of glass manufacturing or production specifications for kind of glass produced. Adjusts controls or directs subordinates to make corrective adjustments. Records amounts and types of ingredients used and in stock. Performs other duties described under SUPERVISOR (any industry) Master Title. May analyze raw materials and molten glass to determine if they are of acceptable quality. May regulate temperatures of annealing lehrs that control cooling of glass. May regulate homogenizer.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

579.137-030 DISPATCHER, CONCRETE PRODUCTS (concrete prod.; construction)
Supervises and coordinates activities of workers engaged in manufacturing concrete products and delivering ready-mix concrete: Quotes prices and receives orders for company products, such as ready-mix concrete, pipes, utility vaults, or septic tanks. Confers with plant production and yard personnel to establish delivery schedules according to factors, such as truck capacities, distances to delivery site, and unloading time. Computes amount of water to be added to each mix of concrete, using moisture meter to determine moisture content of sand and following moisture mix table. Records quantity of sand, cement, gravel, and water required for each mix on loading ticket for use by CONCRETE-BATCH-PLANT OPERATOR (concrete prod.; construction) 570.682-014. Prepares invoices, delivery tickets, and related shipping documents and assigns drivers for scheduled deliveries. Receives cash payments for shipments from drivers and prepares reports of cash and charge sales. Posts transactions to customers' accounts and issues customers account statements to customers. Maintains payroll and driver expense records. Maintains radio contact with drivers to expedite deliveries. Performs other tasks as described under SUPERVISOR (any industry) Master Title. May direct production workers to cast concrete products according to customer specifications. May be designated Dispatcher, Ready-Mix Plant (concrete prod.; construction).
GOE: 07.05.01 STRENGTH: L GED: R4 M3 L3 SVP: 5 DLU: 86

579.364-010 QUALITY CONTROL TECHNICIAN (concrete prod.)
Tests and inspects gypsum and gypsum wallboard during manufacture, using variety of testing devices and procedures to maintain product quality: Collects, measures, and weighs samples of minerals and chemical additives, such as gypsum and vermiculite. Performs tests on samples, using such equipment as ovens and molds, and performs calculations to measure such factors as gypsum purity, particle size, and hardness, applying arithmetic formula. Tests wallboard panels to verify factors, such as adhesion of paper to gypsum, edge hardness, and strength of panels. Observes designated worker performing standard wallboard tests and measurements, reads results, duplicates tests, and compares test results and measurements to verify accuracy of measurement. Collects and records results of sampling and testing to maintain record of product quality. Inspects wallboard at job sites to substantiate customer's claim of product defects. Formulates compensation offers to resolve claims and submits offer to management for approval.
GOE: 06.03.01 STRENGTH: M GED: R3 M3 L3 SVP: 6 DLU: 86

579.367-010 QUALITY-CONTROL INSPECTOR (glass mfg.)
Examines cases of inspected glass containers to determine quality of inspection and packing: Removes sample of glass containers from shipping case and examines containers for defects, such as chips, cracks, and stones. Inspects cases for imperfections in packing, sealing, and printing. Marks rejected lots, using crayon or pencil, and returns defective work to packing department. Records findings on worksheet and computes percentage of defective containers.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

579.367-014 QUALITY-CONTROL TECHNICIAN (glass mfg.) alternate titles: technician
Inspects flat glass and compiles defect data based on samples to determine variances from quality standards: Examines samples of flat glass for defects, such as stones, blisters, and cracks. Clamps sample of flat glass on carriage of distortion-analyzing machine, and starts machine. Interprets gauge readings and graphic recordings of machine to determine degree of ream (wavy distortion) in glass. Calculates standard control tolerances for flat glass, using algebraic formulas, plotting curves, and drawing graphs. Records nature and extent of defects for use of production department.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

579.380-010 BOARD-MACHINE SET-UP OPERATOR (concrete prod.)
Sets up and adjusts mixers, feeders, rollers, cutters, and other equipment to fabricate wallboard and lath: Sets edging bars, rollers, and scoring cutters to ensure that wallboard produced attains specified width and thickness, using rules, gauges, and handtools. Adjusts paper guides, glue feeders, chamfering wheels, and stenciling machine so that board edges will be smoothly sealed and markings legible and evenly spaced. Regulates flow of material into mixing machine. Observes machine operations and adjusts setup on basis of factors, such as atmospheric conditions, slurry composition, and line-speed requirements. May test slurry for consistency, using scale and by feeling it.
GOE: 06.01.03 STRENGTH: L GED: R3 M2 L2 SVP: 6 DLU: 77

579.382-010 CALCINER, GYPSUM (concrete prod.)
Controls grinding mills, kettles, and conveyors to grind and dehydrate gypsum rock and transfer gypsum to storage bins or pulverizing machine: Opens storage bin gates to admit rock into grinding mill and starts mill. Feels ground rock to determine consistency and adjusts mill as required to obtain specified consistency. Opens chute to allow ground rock to flow into kettle. Lights fire under kettle. Reads temperature gauge and regulates fuel feed valve to maintain specified temperature inside kettle. Collects sample of calcined gypsum for laboratory analysis. Opens chute after specified time and turns air valve to force calcined gypsum into hot pits for cooling. Starts bucket elevators and conveyors to move gypsum from pits to storage bins or to ball mill for pulverizing. May operate rotary drier to dry gypsum rock before calcination.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

579.382-014 CUPOLA OPERATOR, INSULATION (nonmet. min.)
Operates water-cooled cupola furnace and related equipment to melt coke, slag, basalt, lime, and silica into molten mineral, and spins molten mineral into mineral wool fibers: Lights fire in furnace to melt charge. Reads gauges and turns valves to regulate water and steam pressure. Observes melting of ingredients in furnace through porthole, and adjusts airblast on flaming coke bed to control intensity of heat and melting process. Activates spinning wheel. Removes taphole plug to allow molten stream to flow into water-cooled furnace trough, over high-pressure steam jet and into spinning wheel, to be spun into mineral wool fibers. Observes color intensity and flow of molten stream to determine suitability for spinning. Adjusts distance of steam ring and spinning wheel from end of trough to control length of spun fibers. Scrapes residue slag from trough and spinning wheel, using bar and scraper.
GOE: 06.02.10 STRENGTH: H GED: R3 M2 L2 SVP: 6 DLU: 77

579.382-018 KNIFE OPERATOR (concrete prod.)
Sets up and controls equipment to perforate, cut, and stencil plaster wallboard and convey board through kiln: Adjusts perforator and knife according to specifications, using gauge and handtools. Inserts code letters in stenciling drum, using tweezers and fills drum with ink. Adjusts speed of roller and accelerator conveyors according to size of board. Sets speed of kiln conveyor for specified

drying time. Inspects wallboard emerging from drying kiln for unsealed edges and surface blemishes. Removes defective wallboard from conveyor line. Measures and weighs wallboard samples for conformance to specifications, using rule, micrometer, and scale.
GOE: 06.02.09 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

579.382-022 BLANKMAKER (glass mfg.)
Operates glass lathe to form glass tubes into glass blanks used in fabrication of laser light conductors: Reads work orders and technical manuals to determine lathe setup procedures, and pushes buttons and turns knobs to adjust lathe gas-injection and temperature controls. Locks glass tube into spindle chuck, using wrench. Trues and flares glass tube, using lathe carriage burner, ruler, and calipers. Attaches chemical spray nozzle to glass tube to coat interior of tube with gases, and inserts auger into tube to remove chemic residue. Lowers and locks spindle shield to form dust-free chamber. Presses keys on keyboard to transmit production specifications to computer and to transfer lathe operation from manual to automatic control for duration of blankmaking process. Observes lathe dials and gauges, computer display panel, and color of flame on lathe carriage burner to verify adherence to manufacturing specifications. Calculates data, such as blank weights, diameters, and densities, using calculator, and enters data on record sheet. Repairs lathe, using wrenches, pliers, and screwdrivers to correct malfunctions.
GOE: 06.02.13 STRENGTH: L GED: R3 M3 L3 SVP: 6 DLU: 86

579.384-010 BRICK TESTER (brick & tile)
Fabricates brick and tile samples and tests samples for conformance to strength specifications: Starts machines that grind, sift, and mix clay. Molds brick and tile samples, using mold, hand rammer, and trowel. Places models in kiln burner and turns switches or valves to heat kiln to specified temperature. Removes samples from kiln and places samples on testing machine supports. Turns handwheel to force bearing plate against samples. Reads gauge to obtain transverse breaking load in pounds per square inch, and records data. Inspects products for size, cracks, and other imperfections, using hammer and notched rule. May test products for strength, using testing machine.
GOE: 06.02.30 STRENGTH: L GED: R2 M2 L1 SVP: 4 DLU: 77

579.384-014 QUALITY TECHNICIAN, FIBERGLASS (glass mfg.) alternate titles: laboratory technician
Tests fiberglass yarn, fibers, or binder solutions at any stage in manufacturing process to determine if standards are met: Weighs samples of fiber and binder solution on balance scales before and after drying in miniature oven and burning in muffle furnace, and computes percentage of binder on fiber and percentage of solids in binder solution, using slide rule or mathematical formula. Examines and tests goods returned by customer or at customer's establishment to detect manufacturing defects or damage incurred in transit and records results for use by quality control and production supervisors.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

579.384-018 WARE TESTER (glass mfg.)
Collects, inspects, and tests glassware, such as containers and cathode-ray tubes, for conformance to specifications: Collects samples to be tested and measured, and marks samples and logs with identifying information, such as batch number, machine number, and mold number. Visually inspects glassware for defects, such as striations (stress lines), bubbles, pits, discolorations, incomplete grinding and polishing, and painting flaws, such as chips and smears. Fills containers with water to determine fluid capacity by weighing filled container on scales or pouring contents into graduated cylinder. Verifies size, shape, radius, thickness, weight, eccentricity, and surface flatness, using templates, calipers, micrometers, scales, eccentricity table, surface blocks, wedge blocks, or electronic measuring instruments. Determines annealed quality of glassware by either observing glass through polariscope, measuring wave length of glass color with spectrophotometer, or by examining microsections for annealing striations. Immerses containers in hot or cold water tanks to estimate thermal shock resistance. Determines bursting point of container by either filling container with water and inserting electrically controlled plunger in container to apply pressure, or placing container in pressurized chamber. Cuts glass into wafers and examines glass under microscope to measure micro defects. Records results of tests and deviations from standards and submits o supervisor; notifies supervisor of serious defects, such as failure to withstand thermal shock or defective mold. May set and adjust measuring devices used in laboratory or by **SELECTOR** (glass mfg.). May compile specifications from new product orders for setting quality control standards. May piace sample in test tube, immerse test tube in controlled temperature water, and observe settling point of glass to estimate density of glass. May place container in surface abrader to estimate container scratch resistance. May place container in jaws of calibrated vice to determine horizontal bursting point. May test gob (lump) of molten glass from furnace and forehearth to ensure glass temperatures are within specifications. May pack sample ware for shipment to customer. May perform dimensional measurements at production work stations and be designated Floor Inspector (glass mfg.). May be designated according to article inspected as Bottle Inspector (glass mfg.); Television-Tube Inspector (glass mfg.).
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

579.387-010 MAT TESTER (nonmet. min.)
Tests mat of fiberglass insulation material to determine if product conforms to specifications: Cuts sample of mat, using knife or razor blade and template, and weighs mat on balance scale. Burns weighed sample in miniature oven to remove binder, weighs burned sample, and computes percentage of binder in sample, using slide rule. Suspends sample of mat in styrene solution and times disintegration of sample to determine solubility of binder. Places sample between plates of thickness gauge and reads dial indicator before and after application of pressure to gauge to determine thickness with or without stress. Records test results on mat-testing record.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

579.484-010 SAMPLER (mine & quarry) alternate titles: bucker; coal inspector; hardness tester; materials inspector; ore sampler; tester
Collects samples of coal, ore, crushed stone, aggregate, sand or gravel from railroad cars, conveyors, stockpiles or mines and tests materials for conformance to specifications: Gathers samples from specified locations and transports samples to laboratory. Dumps material into sample divider to reduce volume of sample. Weighs material, using balance scale, and dumps sample into grinding machine to grind and blend sample or into screen testing machine to separate particles by size. Weighs segregated particles collected on each screen and computes percentage of each in total sampie. Examines samples for presence of foreign matter and variation from color standard. Compiles reports indicating percentages of materials of specified size. Notifies management when materials do not meet specifications. May weigh, dry, and reweigh samples to determine moisture content of samples. May bag samples for testing at other locations. May perform chemical sedimentation or magnetic separation tests. May perform hardness test on pellets. May plot origin of samples on mine map.
GOE: 02.04.01 STRENGTH: M GED: R3 M2 L1 SVP: 4 DLU: 77

579.584-010 FIBERGLASS-CONTAINER-WINDING OPERATOR (glass products)
Performs any combination of following duties to fabricate fiberglass air containers used in hydraulic systems: Assembles hemispherical mold or mandrel sections of lead alloy to form sphere. Covers sphere with rubber-liner halves and cements halves together. Examines rubber covering for defects. Attaches threaded fittings onto rubber lining at top and bottom of sphere. Inserts shaft through fitting opening into sphere and screws into place, using wrench. Weighs resin and catalyst in specified amounts and mixes them with agitator. Mounts sphere in winding machine and applies resin to surface, using brush. Starts machine that winds fiberglass yarn around sphere. Measures tension of fiberglass using tensiometer, and adjusts tension arm. Removes and weighs fiberglass-covered sphere. Records weight on production sheet. Places covered spheres in electric oven to bake and dry for specified time. Removes and weighs spheres. Mounts spheres on steam unit to melt and remove mold. Turns valve to admit steam into sphere. Turns spigot to discharge molten alloy. Weighs sphere and records weight. Performs hydrostatic tests on completed spherical containers at various pressures. Connects fitting on container to water pipe in safety tank. Turns water valves and starts pump to increase pressur in container to specified level.
GOE: 06.04.13 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

579.585-010 SAMPLER-TESTER (nonmet. min.)
Grades samples of asbestos fibers taken from various parts of fiber-manufacturing plant by combining samples and tending machine that agitates know quantity and weight of fibers for specified time. Weighs quantity of fibers deposited on each of four screens in machine to find average weight that determines grade of fibers. Records grade on bags of fibers according to test result May collect fiber samples from clothing of workers, using portable vacuum device. May monitor noise levels at each work station, using sound level meter.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

579.587-010 ROUND-UP-RING HAND (concrete prod.)
Bolts round-up ring sections around steel can (cylinder) to retain circula shape of cylinder during casting of reinforced concrete pipe: Rolls can on raise track into assembly line position, assisted by other workers. Measures an marks length of can to position rings, using gauge and chalk. Braces interi of can near end, using curved blocks and jack. Aligns mold-ring flange ov can end and tightens set bolts, using wrench to lock rings in place. Position and bolts ring halves against can, using jack and wrench. Rolls completed ca on track to mortar-lining area.
GOE: 06.04.22 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

579.662-010 MAT-MACHINE OPERATOR (nonmet. min.)
Operates range consisting of staple cutters, conveyor, binder and water spra ers, drying oven, pressure rollers, inspection table, and automatic cutting a winding device to produce continuous sheets of fiberglass insulation materi Turns knob on control panel to heat drying oven. Starts range and guides she of matted fiberglass under pressure rollers, over inspection table and slitti knives, under cutting blade, and laps end around winding shaft. Patrols wo area and observes range units, temperature gauge, and flow of material throu range to detect irregular operation of machine and variations from standar Examines matted sheets for thin spots and foreign matter. Directs STRAN AND-BINDER CONTROLLER (nonmet. min.) to increase or decrease numb of fiberglass sliver ends fed into staple cutters to restore finished product specified thickness. Adjusts temperature of oven to dry material according specifications.
GOE: 06.02.09 STRENGTH: L GED: R3 M2 L1 SVP: 4 DLU: 77

579.664-010 CLAY-STRUCTURE BUILDER AND SERVICER (gl mfg.) alternate titles: clay-house worker; refractory special
Builds and replaces clay structures that control flow and temperature of m ten glass in melting tanks and drawing kilns: Bolts sections of specified woo

mold together, using wrench, and lines assembled mold with paper to prevent adherence of clay to wooden mold. Dumps and tamps clay in mold, using tamping tool. Disassembles mold and covers clay structure with damp burlap to prevent rapid drying. Cuts, chips, and smooths molded clay to form such structures as floaters, shutoff bars, drawbars, and L-blocks, using square, rule, and handtools. Transfers clay structures to curing ovens, melting tanks, and drawing kilns, using electric forklift truck. Installs clay structure replacements in melting tanks and drawing kilns, using chain hoists and handtools. Cleans out openings of melting tanks, using airhose. May mix clay for structures.
GOE: 05.10.01 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

579.664-014 INSPECTOR II (concrete prod.)
Inspects finished concrete building products for flaws, finish, and conformance to dimensional specifications, using blueprints and precision measuring instruments: Compares dimensions of product, such as prestressed concrete building panels, conduit, and beams, with blueprints, using micrometer, calipers, fixed gauges, and rule. Examines products for flaws, such as cracks, warped sections, bent reinforcing rods, and surface or color irregularities. Rejects products not meeting specifications and notifies originating department to repair product or take measures to minimize future irregularities. May cast and crush sample concrete product in hydraulic press to test strength of concrete.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

579.665-010 BRAKE-LINING FINISHER, ASBESTOS (nonmet. min.) alternate titles: impregnator operator
Tends tanks that impregnate asbestos lining stock with asphalt solution: Loads vacuum tank with rolls of asbestos lining, using hoist. Turns valves to admit specified quantities of asphalt solution into tank. Turns steam valves to heat tanks, observes temperature control chart, and adjusts coolant valves to maintain temperature within specified limits. Transfers impregnated rolls of asbestos from tank to oven, using hoist. Allows material to heat for specified time to complete impregnating process. Starts blower to dry and exhaust fumes from asbestos. May standardize width and thickness of asbestos lining [CALENDER-MACHINE OPERATOR (nonmet. min.)]. May test impregnated stock to ensure conformance to specifications, using brake-testing machine. May deliver samples to control laboratory. May tend mixing machine to prepare impregnating solution.
GOE: 06.04.19 STRENGTH: M GED: R3 M1 L1 SVP: 3 DLU: 77

579.665-014 LABORER, CONCRETE-MIXING PLANT (construction) alternate titles: concrete-mixer-operator helper; laborer, mixing plant; machine helper; mixer helper; mixer tender; mixing-plant dumper
Performs any combination of following duties in concrete mixing plant: Verifies amount of aggregate in storage bins by visual inspection, and turns swivel head to direct aggregate into specified bin. Tends electrically powered conveyor or pneumatic pump to hoist cement from feeder hopper, railroad car, or transport truck into storage container, such as cement silo. Loosens locking pin, using hammer, to dump cement from cars into storage hopper, prodding cement with pole through trapdoor in car until car is empty. Positions trucks, cars, or buckets under spouts of concrete mixers, batching plants, or hoppers, using hand signals, and moving levers or handwheels to discharge concrete into trucks, cars, or buckets. May haul cement from storage in bulk or bags, emptying, cleaning, and bundling empty bags. May be designated according to duties performed as Aggregate-Conveyor Operator (construction); Bag Shaker (construction); Cement Car Dumper (construction); Cement-Conveyor Operator (construction); Cement Handler (construction); Cement-Sack Breaker (construction). May be designated: Concrete-Bucket Loader (construction); Concrete-Bucket Unloader (construction); Concrete-Conveyor Operator (construction); Concrete-Hopper Operator (construction); Concrete-Mixer Loader, Truck Mounted (construction); Conveyor Tender, Concrete-Mixing Plant (construction); Dumper, Central-Concrete-Mixing Plant (construction); Loft Worker, Concrete-Mixing Plant (construction).
GOE: 05.12.04 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

579.665-018 WIRE SETTER (glass mfg.)
Tends machine that unwinds wire netting to be imbedded in sheet glass: Cuts V-shaped point on leading edge of roll, using hand shears, and positions roll on holding frame of machine. Signals coworker to feed end of wire netting into glass-rolling machine. Splices end of depleted roll of netting to lead end of new roll and places new roll in unwinding frame.
GOE: 06.04.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

579.667-010 LABORER, GENERAL (brick & tile) alternate titles: clean-up worker; yard worker
Performs any combination of following duties involved in manufacturing brick and tile products: Loads articles, such as brick, tiles, and sewer pipe on pallets and transports them to machines, disposal, or storage area, using handtruck. Carries bricks to kilns. Pushes empty kiln cars, drier cars, and mine cars to work areas. Replaces sifting screens in grinding units. Shovels clay-bearing earth into mine cars, couples cars, and signals TRUCK-CRANE OPERATOR (any industry) 921.663-062 to draw loaded cars to mouth of pit mine. Clears weeds, topsoil, roots, and debris from working areas in pit mines. Digs ditches in pit, using shovel. Trims walls and roof of clay tunnel in pits, using shovel. Cleans machines and passage areas of dust and clay residue, using broom and shovel. Smooths dried, unburnt clay blocks, using knife, board, and mallet.
GOE: 06.04.30 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 78

579.682-010 MIXER, WET POUR (concrete prod.) alternate titles: mixer operator
Operates rotary type machine to mix concrete and fills metal molds to make pipe and other concrete products: Pulls trip bar and lever on overhead chutes to fill suspended weighing hoppers and cart with specified weights of sand, gravel, and cement. Pushes cart of cement to mixing machine and tilts cart by hand to dump cement into machine. Turns valve to admit specified quantity of water. Fills mold with sample batch of concrete. Lifts mold from sample and compares diameter of sample with diameter of mold to determine whether consistency of concrete conforms with specifications. Adjusts mixture by adding water, cement, sand, or gravel. Bolts pneumatic vibrator to mold, using hand wrench. Pulls lever to open mixer chute and fill pouring bucket. Positions bucket over mold, using overhead hoist and pulls trip bar to fill mold. Starts vibrator to settle concrete. Pushes concrete remaining on core cover into mold, using hoe. Levels off top of fresh casting, using trowel. Records each batch of concrete produced.
GOE: 06.04.17 STRENGTH: V GED: R3 M2 L1 SVP: 4 DLU: 77

579.684-010 CONCRETE-VAULT MAKER (concrete prod.)
Casts concrete burial vaults: Places vault handles in lid mold, lifts mold sides, and inserts pin to secure mold sides. Pulls lid handles through mold slots and inserts wedge to secure lid handles. Lifts bottom mold sides and secures sides, using pins and hammer. Greases top edge of mold inner core to prevent concrete seepage from mold. Positions concrete bucket over molds, using electric hoist, and pulls lever to empty concrete into molds. Slides pneumatic vibrator into mold socket to settle concrete in molds. Smooths top of concrete, using screed and trowel. Removes pins from bottom mold sides, and pulls sides of bottom mold down, using hammer and pry bar, to separate mold from vault. Pulls lever to relax inner core mold to permit vault removal. Removes securing pin to lower lid mold sides. Scarifies lid surface and applies and stipples finishing cement to decorate lid, using scarifier and brush. Transfers vault bottom and lid to spraying area, using hoist. Sprays vault with asphalt and colored paints to protect and decorate vault. Applies sealing compound to vault lid, using trowels. Hoists vault bottom and lid onto truck. Delivers vault to grave site, and lowers vault into ground.
GOE: 06.04.32 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

579.684-014 CRAYON GRADER (mine & quarry)
Inspects talc crayons for defects, sorts crayons according to length, and packs crayons for shipment: Spreads crayons in hands and examines crayons for defects, such as broken, split, or incomplete pieces. Separates crayons into grades according to length and defect. Packs graded crayons in cardboard boxes and places defective crayons in tray. Seals boxed crayons, using tape, and glues label on box.
GOE: 06.03.02 STRENGTH: S GED: R2 M1 L2 SVP: 3 DLU: 77

579.684-018 KILN-FURNITURE CASTER (pottery & porc.)
Fabricates ceramic kiln furniture used to support glazed ware during firing: Weighs domestic clay and grog according to formula. Dumps materials into mixing machine, adds water, and allows machine to run for specified time. Drains grog from container into molds. Removes furniture (setters and pedestals) from mold when dry, finishes funiture with knife and sponge, and places furniture in kiln for firing at specified temperatures. Removes fired pieces from kiln to storage, using handtruck. May cut setters from extruded clay sheets, using specified shape cutters.
GOE: 06.04.17 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

579.684-022 MICA-PLATE LAYER, HAND (mine & quarry)
Applies mica splittings to paper or fiberglass cloth to produce mica sheet: Places precut sheet of paper or piece of fiberglass cloth on table and places mica splittings over entire surface so that pieces of mica overlap each other. Brushes silicone varnish over surface, using paint brush, and places sheet on table for drying.
GOE: 06.04.33 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

579.684-026 CASTER (brick & tile) alternate titles: castables worker
Mixes slurry, fills molds, and conveys filled molds to drier to cast refractory brick, using mixer, vibrating table, chain hoist, and related equipment: Reads work order to determine product to be cast and bolts specified mold parts together, using impact wrench. Attaches chain hoist to assembled mold and moves mold to vibrating table. Empties premeasured ingredients into mixer according to formula, adds water, and starts mixer. Observes mixture and adds additional water, as required, to achieve prescribed consistency, utilizing acquired experience. Fills bucket with slurry and pours slurry into mold. Presses switch to start vibrating device on table and adds slurry to fill mold as mixture settles during vibration. Draws metal bar across surface of mixture to level casting. Stacks filled molds in drier car, using chain hoist, and pushes loaded car along rail into drier. Sets drier controls to dry castings according to specifications, and pulls drier car from drier at end of cycle. Removes molds from dried products, using impact wrench. Cleans mold parts, using brush.
GOE: 06.04.32 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 86

579.684-030 CUTTER (brick & tile)
Cuts kiln furniture, bricks, or other clay and shale products to specified shape and size, using one of following methods: (1) Adjusts cutting jig of table-mounted handsaw to specified setting, using tape measure and allen wrench. Positions casting in jig and pulls saw blade to cut ware to specifed size. (2) Places pressed ware into table-mounted form. Lowers die or wire cutter onto ware to cut ware into specified shape and size.

GOE: 06.04.30 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

579.685-010 DRIER-AND-GRINDER TENDER (mine & quarry) alternate titles: crusher, dry-ground mica

Tends drying cylinder and hammer mill arranged in tandem to dry and pulverize mica: Turns valve to start flow of oil in burner and ignites oil to heat drying-cylinder. Starts machines that tumble mica in heated cylinder and automatically feed dry mica into hammer mill. Examines pulverized mica for discolorations caused by excess heat and for conformance with grinding specifications. Adjusts controls of drying cylinder to regulate temperature and replaces worn hammers to grind mica to specifications, using handtools. Changes screens on discharge chute of hammer mill according to size specified for mica. May fill machine hopper with mica, using tractor equipped with scoop.
GOE: 06.04.08 STRENGTH: L GED: R3 M1 L1 SVP: 4 DLU: 77

579.685-014 FRIT-MIXER-AND-BURNER (brick & tile; pottery & porc.) alternate titles: frit burner

Tends equipment that blends and melts materials, such as clay, flint, and lead oxides, to make glaze: Weighs specified amounts of ingredients on scale according to batch card. Dumps weighed materials into mixing machine. Sets timing device on mixer for specified period and starts mixer. Observes mixture for conformance to coloring specifications. Empties batch from machine into bin and transports bin to frit furnace, using lift truck. Dumps materials into furnace and turns gas and air valves to heat furnace to specified temperature. Shuts off furnace and turns wheel to pour fused mass from furnace into water sump to undergo crystallization. Drains off water and shovels crystals (frit) into bin. Transports bin to storage area, using handtruck.
GOE: 06.04.17 STRENGTH: H GED: R2 M2 L1 SVP: 4 DLU: 77

579.685-018 GLASS-CLEANING-MACHINE TENDER (glass products)

Tends machine that automatically dips, sprays, steams, and dries glass articles, such as instrument lenses and hypodermic syringes. Loads articles into baskets of machine. Presses button to start and stop machine. May mix cleaning solution and test solution for acidity, using hydrometer.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

579.685-022 GLASS-WOOL-BLANKET-MACHINE FEEDER (glass products)

Tends machine that laminates and glues paper to glass-wool for use as building insulation material: Feeds rolls of paper into machine. Starts machine and observes operation to ensure that glue spreads evenly and rolls of paper adhere to both sides of glass-wool to form blanket.
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

579.685-026 MICA-PLATE LAYER (mine & quarry)

Tends machine that forms plates of built-up mica: Turns knob on control panel to set oven temperatures according to specifications. Dumps mica splittings into machine hopper and fills supply tanks with binding solution. Starts machine that distributes mica splittings on conveyor, sprays splittings with binding solution, and dries continuous sheet of mica. Examines mica plates at discharge end of machine to detect variations in thickness. Cuts mica sheets into plates of specified length, using cutter attached to table. Moves controls on hopper to regulate flow of splittings according to thickness of mica plates. Adjusts oven controls to regulate temperature. Notifies supervisor of machine malfunctions.
GOE: 06.04.08 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

579.685-030 MOLD POLISHER (glass mfg.) alternate titles: mold cleaner

Tends machines that clean or polish forming molds and components by any of following methods: (1) Starts pumps on vapor-blast machine to circulate water and cleaning compound through hose. Places parts on table and pushes table into machine cabinet. Pushes control lever to start flow of compressed air through hose. Holds and turns parts while directing pressurized stream of water and cleaning compound onto parts to remove dirt, carbon, and scales. Dips parts in oil solution to prevent rusting. (2) Inserts and secures blank mold and plunger into chuck of open-end polishing jack or lathe. Holds emery cloth over rotating plunger or inserts rod, covered with emery cloth, into mold to clean and polish parts. (3) Holds and turns parts against rotating emery wheel. May soak parts in hot cleaning compound or scrape parts, using scraper to loosen or remove scales and carbon. May rub mold surface with oil or kerosene and abrasive stone or wire brush to remove scale, rust, scratches, and dirt. May apply cork or graphite paste coating to mold interiors to prevent adherence of glass to molds during forming operation. May store cleaned molds in storage bins. May transfer molds and mold parts from storage to production area, using handtruck.
GOE: 06.04.39 STRENGTH: H GED: R2 M2 L2 SVP: 3 DLU: 77

579.685-034 NODULIZER (cement) alternate titles: pelletizer

Tends equipment that dries raw ground materials and makes pellets: Starts pelletizer rotating and starts feed and discharge conveyors and traveling grates in preburning-ovens. Turns valves to regulate water sprays in pelletizer and heat in oven. Observes mixing of materials and water to determine if uniform nodules are being formed. Observes feed hopper to ensure uniformity of filling. Regulates feed of materials, rotation of pelletizer, amount of water spray, and heat of oven to ensure pellets are produced to specifications. Opens inspection ports on oven and observes or removes pellets for examination to ensure specified hardness and heat.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

579.685-038 PACKER, INSULATION (nonmet. min.)

Tends machine that compresses stack of mineral wool insulation batts an inserts them into bag cover: Starts machine and compressing mechanism. Open and slides bag cover over form for filling. Pulls lever to operate discharg mechanism and force stack into bag. Slides package onto table for stapling.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

579.685-042 PRECAST MOLDER (concrete prod.) alternate titles: pre cast worker

Tends portable concrete-mixing machine and handcasts ornamental and structural concrete building products, such as blocks, colored tile, simulated-bric facings, fireplace units, and reinforced roof and floor sections: Shovels sand cement, gravel, or pumice into mixing machine. Adds water and pigments a instructed and starts machine. Dumps mix into wheelbarrow and pushes to casting room. Brushes casting oil on molds to prevent adhesion of concrete. Cast products by any of following methods: (1) Places molds on vibrating table shovels mix into molds, starts vibrator to settle concrete or pumice, levels surface of mix with wood bar, and carries filled molds to curing racks. (2) Shovel mix into floor molds and sets reinforcing steel rods into mix to cast fireplace roof, or floor sections. Dismantles forms after concrete has cured, using pry ba and wrench. (3) Places bricks into mold and pours concrete over bricks to for solid block. Sets reinforcing rods in mix and clamps mold shut. Removes form after blocks are cured by releasing clamps or disassembling mold, using pr bar and wrench. May be designated according to product cast as Brick Venee Maker (concrete prod.); Cement-Tile Maker (concrete prod.).
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

579.685-046 ROUGE SIFTER AND MILLER (optical goods) alternate titles: sifter and miller

Tends machines that sift and mill powdered rouge for use in polishing lenses Loads hopper of sifter with rouge powder and starts machine to separate coars from fine particles. Fabricates paste for polishing lenses [ROUGE MIXER (optical goods)], using mill to reduce particle size. May fill containers with roug paste or powder for shipment [PACKAGER, HAND (any industry)].
GOE: 06.04.09 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

579.685-050 SILO TENDER (cement) alternate titles: cement-storag worker

Tends stationary pump in pneumatic conveyor system that conveys fin ground raw materials or finished cement from one bin to another preparator to further processing: Pushes levers to start pump, air compressor, and othe conveying equipment. Observes pressure dials on pump that indicate operatin condition of conveyor. Makes minor repairs to pump to correct faulty operatio Oils and greases equipment. May pump bulk cement from unloading bins int tank trucks, railroad cars, and boats [CEMENT LOADER (cement)]. May ten mobile pump.
GOE: 06.04.40 STRENGTH: M GED: R2 M2 L1 SVP: 3 DLU: 77

579.685-054 SILVER STRIPPER, MACHINE (glass products)

Tends machine that removes silver, copper, and paint from defective mirro Weighs specified amount of caustic soda and pours into storage tank. Star conveyor, washer, and drier unit and turns valves to admit water, acid, an caustic soda into spray pipes or tank. Places mirror on conveyor that carri mirror through caustic soda and water sprays, acid tank, and washing and drying units. Reads gauge and turns valve to regulate temperature to prevent sod from boiling over.
GOE: 06.04.39 STRENGTH: H GED: R2 M2 L1 SVP: 2 DLU: 77

579.685-058 BRICK SETTER OPERATOR (brick & tile) alternate title stacker operator

Tends machine that cuts columns of extruded clay and shale into brick an stacks layers of brick onto kiln cars for firing: Depresses buttons on panelboa to start conveyor that moves columns of clay and shale from extruder throug cutter that cuts column into brick and assembles layer of brick on platform machine. Depresses button to activate hydraulic pickup head of machine th picks up layer of brick from platform and stacks brick on kiln car. Straighte uneven brick on stack, using hands. Clears jammed conveyor and machin using metal bar and scraper. Discards broken columns of clay and shale damaged brick onto conveyor for recycling. Activates control on panelboard tie (set at right angles) two top layers of brick on kiln car. Replaces broke cutter wires on machine cutter, using handtools. Dusts conveyor, cutter, a pickup head, using airhose. Oils and greases specified parts of machinery, usi oilcan and grease gun.
GOE: 06.04.08 STRENGTH: M GED: R3 M1 L2 SVP: 3 DLU: 86

579.685-062 BRICK UNLOADER TENDER (brick & tile)

Tends equipment that automatically unloads brick from kiln cars after firin Depresses buttons on control panels to activate equipment that moves load kiln cars along rails into unloading position, lowers hydraulic pickup head th lifts stacks of brick from kiln car onto conveyor, and conveys brick to su sequent processing area. Depresses buttons to stop equipment when rows brick are unevenly stacked, damaged bricks are detected, or jamming or oth malfunctions occur. Replaces damaged bricks and straightens rows. Remov jammed bricks, using iron bar. May unload stacked bricks from conveyor, usi hydraulic ram. May manually remove rows of stacked brick to create ti course (open spaces) to facilitate handling by forklift during packaging.
GOE: 06.04.40 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 86

579.685-066 BRIQUETTE OPERATOR (brick & tile)

Tends vacuum screen that screens magnesium liquor and briquette pre equipment that presses screened residue (filter cake) to form briquettes

periclase (refractory material): Flips control panel switches to start multilevel arrangement of vacuum screen feeder wheel, vacuum screen hearth kiln, and briquette press. Observes vacuum screen feeder wheel to verify that cups positioned on feeder wheel are full of magnesium liquor for emptying onto vacuum screen. Turns dials on control panel to adjust speed of vacuum screen feeder wheel and vacuum screen to control thickness of filter cake, following prescribed procedure. Reads counter on feeder wheel to determine revolutions per hour and records totals in logbook. Moves control knobs to adjust amount of filter cake fed from hearth furnace onto conveyor and into briquette press. Turns knobs to regulate speed and pressure of briquette rollers that form briquettes. Observes indicator lights and gauges on control panels to detect equipment malfunction and notifies supervisor. Records equipment downtime in logbook.
GOE: 06.04.19 STRENGTH: L GED: R3 M1 L1 SVP: 2 DLU: 86

579.685-070 MARKER MACHINE ATTENDANT (glass mfg.)
Tends equipment that automatically detects and marks defects in glass ribbon (continuous sheet of flat glass) on conveyor line in glass manufacturing establishment: Observes indicator lights on equipment to ensure activation of all inspection zones. Activates marker at each inspection zone and observes operation of markers to test marker operation. Draws line across glass ribbon, using chalk, to simulate glass defects, and observes equipment operation to verify inspection process. Replenishes chalk in marker mechanism and sheets of paper beneath glass ribbon. Observes lighted panel to determine frequency of marking, according to company standards, and notifies designated personnel if overmarking or undermarking occurs. Inspects glass from catwalk to ensure defects are marked by machine. Cleans and removes dirt, dust, and broken glass from machine and work area, using broom, shovel, vacuum cleaner, and dust cloths.
GOE: 06.04.08 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 86

579.685-074 MIXER (brick & tile)
Tends machines that dry and mix ingredients, such as clay, chromite, shale, and sand to form finishing mixture used in making brick: Reads batch card and notifies helper to assemble ingredients specified on card. Opens bags and weighs specified quantities of ingredients, using scale and bucket. Pours weighed ingredients into storage bins prior to mixing. Turns knob to set temperature of dryer and pulls lever to start mixer. Shovels or pours ingredients into dryer that automatically dries and feeds ingredients into mixer, and dumps mixture into bin for further processing. Observes operation of machines and notifies supervisor of malfunctions. Oils and greases machinery. Removes caked ingredients from dryer and mixer, using metal bar and scraper.
GOE: 06.04.17 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 86

579.686-014 MAT PACKER (nonmet. min.)
Off bears fiberglass insulation material from discharge end of range and packs material for shipment: Guides end of mat around tube mounted on mandrel of automatic roller. Observes mat as it winds on tube and presses button to lower blade, cutting obvious flaws from mat. Doffs rolls of mats from machine rack, using hoist, and reads scale indicator to determine weight of roll. Packs roll of material in cardboard box, seals box, using gummed tape, and pastes label on container. Records roll number, packer number, roll weight, and number of pieces in roll on label and production record.
GOE: 06.04.38 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

579.686-018 MICA-LAMINATING-MACHINE FEEDER (mine & quarry)
Performs following tasks in rotation with other workers to laminate continuous sheet of built-up mica splittings to fiberglass cloth: Places roll of built-up mica, backed with fiberglass cloth, on shaft at feed end of conveyor and feeds roll onto conveyor. Visually inspects built-up mica sheet for thin spots or holes and places mica splittings over defective area to ensure complete coverage. Feeds fiberglass cloth through guides and positions cloth on top of built-up mica sheet as sheet emerges from dip tank containing bonding solution. Spreads bonding solution over top layer of fiberglass cloth, using paint roller. Tapes end of laminated sheet to take-up spool after sheet emerges from curing oven.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

579.686-022 MIRROR-MACHINE FEEDER (glass products) alternate titles: conveyor loader
Feeds mirror glass onto conveyor of glass silvering machine or automatic washing and drying machine. Removes silvered or cleaned mirror from conveyor. May examine mirror glass for defects.
GOE: 06.04.21 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

579.686-026 OFFBEARER, SEWER PIPE (brick & tile) alternate titles: auger-machine offbearer; turner
Performs any combination of following tasks involved in fabricating sewer or conduit clay pipe: Bends green pipe emerging from press to specified angle. Trims pipe socket edges, using hand or automatic trimmer. Lifts and places pipe on pallet board, wagon, or rack, using overhead hoist or pipe turner. Coats pipe socket with grease, oil, or water to prevent premature drying, using sponge or leather smoother. Sprays inside of pipe with glaze, using spray gun. Places kiln furniture and fittings on pipe to prepare pipe for firing. Moves kiln cars along tracks, using car pulley. Cleans machines, presses, and working area, using broom, shovel, and wheelbarrow. Changes press dies, using sledges, bars, and handtools.
GOE: 06.04.17 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

579.686-030 PRESS OFFBEARER (brick & tile)
Unloads pressed clay products from forming press in establishment manufacturing refractory products: Lifts and carries clay products from press to holding rack. Measures product to verify thickness conforms to standards, using calipers. Marks date on products, using pencil, and places products on holding rack. Pushes filled holding rack to drying area and empty rack to press area. Cleans press die of clay residue and dust, using handtools and airhose.
GOE: 06.04.30 STRENGTH: H GED: R1 M1 L1 SVP: 1 DLU: 86

579.687-010 BRAKE-LINING-FINISHER HELPER, ASBESTOS (nonmet. min.)
Assists BRAKE-LINING FINISHER, ASBESTOS (nonmet. min.) to finish asbestos brake lining stock: Loads asbestos lining stock into vacuum tanks, using hoist. Cuts brake lining stock into strips, using handsaw, and trims edges of stock, using side-trimming machine. Grinds brake strips to specified thickness, using surface grinder. Shellacs edges of finished brake strip, using brush or spray gun. May dump specified quantities of materials into mixing machine to prepare brake lining impregnating solution. Performs other duties as described under HELPER (any industry) Master Title. May be designated according to duties performed as Cutter, Brake Lining (nonmet. min.); Grinder, Brake Lining (nonmet. min.).
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

579.687-014 DECORATING INSPECTOR (glass mfg.)
Examines decorated glassware as it emerges from decorating or label-applying machines for decorating defects, such as off-coloring, smears, paint chips, illegible design, and misaligned labels, and for forming defects, such as misshapened glassware: Removes defective ware from conveyor and places ware with decorating defects in cartons or on conveyor for transport to decorating removal station, and discards ware with forming defects in cullet (waste glass) bin. Records number and type of defects and submits report to supervisor. May pack acceptable ware in cartons. May measure dimensions of ware, using fixed gauges and templates. May transfer decorated ware to drying oven.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L1 SVP: 2 DLU: 77

579.687-018 FLOOR ATTENDANT (glass mfg.) alternate titles: flow floor attendant; turn-out worker
Performs any combination of following tasks in forming department to facilitate manufacturing of glass products, such as bottles, containers, and other glassware: Hauls molds, mold components, and machine parts to and from forming department for job changes, and transports cullet (waste glass) from department to storage area, using forklift or handtruck. Supplies machine operators with graphite solution and swabs used to prevent sticking of glass to molds. Sweeps department, using broom to keep work area clean. Assists machine operators by observing automatic transfer mechanism that moves product from forming machine to annealing lehr to prevent jams, filling lubrication dispenser with oil, blowing debris off machine, using airhose. May adjust speed of annealing lehr. May tend container coating equipment which sprays surface hardening solution on containers. May transfer products to inspection or shipping departments, using forklift. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.40 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

579.687-022 GLASS INSPECTOR (any industry)
Visually inspects plate glass or glass products, including fiberglass, for defects, such as scratches, cracks, chips, holes, or bubbles: Places workpiece on inspection stand or table for examination. Examines workpiece and marks defects. Rejects or classifies pieces for potential use, such as mirrors, glass pane, or furniture tops. Scrapes or washes foreign material from surface, using scraper, sponge, or brush. May clean or polish glass by washing with water or solvent and drying with cloth. May place straightedge over glass plates to determine if plates are warped. May attach identifying label to glassware.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 86

579.687-026 MICA PATCHER (mine & quarry)
Examines continuous sheet of built-up (bonded) mica for thin spots and foreign matter as mica emerges from oven onto inspection table: Patches thin spots, using mica splittings and picks out foreign matter. Removes lengths of built-up mica from delivery end of machine and stacks mica on table.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

579.687-030 SELECTOR (glass mfg.) alternate titles: glass-products inspector; inspector, machine-cut glass; inspector-packer, glass container
Inspects finished glassware for conformance to quality standards: Examines glassware for defects, such as cracks, chips, reams (wavy distortions), discolorations, and blisters. Verifies weight and dimensions of glassware, such as height, circumference, thickness, and bottle throat openings, using templates, jigs, micrometers, and fixed gauges; or monitors automatic gauging equipment that measures glassware. Examines glass for annealing defects, using polariscope. Removes glassware to unjam automatic equipment. Throws rejects in cullet (waste glass) bin. May record production, number of rejects, and lehr temperatures. May pack acceptable glassware in cartons, close and seal cartons, and stencil information on carton, using brush and ink. May turn controls to synchronize automatic gauging equipment with conveyor speed.
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L1 SVP: 3 DLU: 77

579.687-034 DISC-PAD KNOCKOUT WORKER (nonmet. min.)
Removes cured asbestos disc brake pads from metal die plates, using knockout device: Positions die plate on roller-type conveyor, removes lid from plate,

and scrapes asbestos residue from lid, using putty knife. Pushes plate onto revolving tray and pulls lever to flip plate over to facilitate knockout of disc pads. Presses button to activate knockout device that forces metal rods into wells of die plate to punch pads from plate. Pushes empty plate along conveyor for subsequent re-use in heat-treating process.
GOE: 06.04.34 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 86

579.687-038 DISC-PAD-PLATE FILLER (nonmet. min.)
Places asbestos disc pads into wells of die plates prior to heat-treating process: Sprays die plate to prevent pads from adhering to plate during heat-treating process, using spray gun and silicone solution. Positions individual pads into wells of die plates and pushes filled plate along roller-type conveyor to oven of hot press. Discards broken or defective pads.
GOE: 06.04.34 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 86

579.687-042 LABORER, CONCRETE PLANT (concrete prod.)
Performs variety of tasks in establishment manufacturing concrete products: Ties strip of cloth around bell of freshly cast concrete pipe to maintain circular shape of bell during curing. Arranges pipe in storage yard and stacks pipe for shipment. Places rubber gaskets on pipe. Stacks concrete blocks on pallets for removal by forklift truck. Feeds concrete blocks into block-breaking machine or abrasive saw to shape blocks. Immerses chimney flue liner sections in sealing compound. Brushes stone facings to remove loose material, applies acid solution, using brush to remove concrete around stones, and washes acid from stone, using water hose. Repairs defects in concrete surfaces, using mortar or grout and trowel, and smooths rough spots, using chisel and abrasive stone. Opens gates of railroad cars to allow materials to flow into storage chutes. Loads, unloads, and moves cement, sand, and gravel to work areas, using wheelbarrow, handtruck, or industrial truck. Cleans yard and plant, using shovel, broom, and water hose, and performs other duties as assigned. May be designated according to specific duties performed as Acid Cutter (concrete prod.); Bell Tier (concrete prod.); Block Breaker (concrete prod.); Block Cuber (concrete prod.); Flue-Lining Dipper (concrete prod.); Rough Patcher (concrete prod.); Yarder (concrete prod.).
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 79

58 OCCUPATIONS IN PROCESSING OF LEATHER, TEXTILES, AND RELATED PRODUCTS

This division includes occupations concerned with applying treatment materials and additives to textile, leather, and textile products; subjecting such materials and products to chemicals, heat, mechanical action, cleaning agents, and the like to impart such characteristics as body weight, pliability, size, texture, water resistance, and finish. Includes converting hides and skins into leather.

580 SHAPING, BLOCKING, STRETCHING, AND TENTERING OCCUPATIONS

This group includes occupations concerned with imparting or restoring shape to materials and objects by the use of such devices as blocks, and extending materials to their full extent or to greater size by such devices as tenters (frames for stretching).

580.380-010 FIXER, BOARDING ROOM (knitting)
Sets up and adjusts machines and equipment used to shape and dry hose, using knowledge of machine function and *boarding II* process: Turns valves to admit steam to drying cabinet or boarding forms. Changes *toe boards* or boarding forms according to size of hose being processed, using key and handtools. Observes gauges during boarding and turns valves to increase or decrease steam pressure and temperature of drying chamber or boarding forms, according to type of hose being boarded. Replaces worn or broken parts, such as conveyors, boarding forms, and electric motors, using handtools.
GOE: 06.01.02 STRENGTH: M GED: R4 M2 L3 SVP: 7 DLU: 77

580.485-010 CALENDERING-MACHINE OPERATOR (knitting) alternate titles: calenderer; finisher; folding-machine operator; mangle tender, cloth; rolling-up-machine operator
Tends machine that stretches and sets circular knitted cloth (knit tubing) to uniform width: Turns screws to adjust width of spreader according to specifications. Turns valves to admit steam into steam box that sets stretched cloth. Threads cloth over feed and guide rollers, around spreader, through steam box, and between pressure rolls, and wraps end of cloth around *takeup roll* or guides end through *swing-folding attachment*. Starts machine and observes flow of cloth to detect cloth defects, such as dirt, dye streaks, and holes. Cuts defects from cloth, using shears. Measures width of calendered cloth with hand rule. Cuts calendered cloth with shears or automatic cutter attached to machine and doffs rolls of cloth from machine. May lower top pressure roller to press cloth. May attach identification tag to end of cloth bolt. May tend calender fed from rolls, handtruck, or another machine.
GOE: 06.04.05 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

580.682-010 WEFT STRAIGHTENER (textile)
Operates weft straightener that straightens and aligns skewed weft of broad woven fabrics after wet finishing: Observes cloth passing under beam of light to detect skewed weft. Presses buttons to control movement of rollers that hold back leading selvage of skewed cloth and to allow lagging selvage to catch up. May tend finishing machines, such as cloth drier, calender, or *tenter frame*.
GOE: 06.04.16 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

580.684-010 BLOCKER, HAND I (hat & cap) alternate titles: blocker, heated metal-forms; felt puller; hat blocker; roper
Shrinks felt cones to size and shapes cones to form unfinished hat bodies: Immerses cone in hot water, places cone in steam cabinet, or holds cone over steam jet, to shrink and soften cone. Positions softened cone over heated head-shaped block. Presses and rubs cone to smooth and shape cone by hand or using iron. Ties cord around base of crown and pulls edge of cone over base of block to form brim of hat. Removes cord and block from hat body after drying. May place cones in drying cabinet following blocking process.
GOE: 06.02.27 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

580.684-014 BLOCKER, HAND II (hat & cap) alternate titles: cap blocker; hat-blocking operator; strawhat-blocking operator
Presses caps or hats over heated hat blocks, by hand or with electric iron, to shape, smooth, or finish articles by any combination of following methods: (1) Turns dial or handle on metal block to heat block and fits article over block. Presses, pulls, and rubs article by hand to smooth article. (2) Inserts parts of adjustable block into hat or cap and forces wedge between parts to expand parts to fill article. Places article on bed of steam chamber or holds article over steam jet to soften article. Presses article with electric iron before placing in heated drying box. May be designated according to hat blocked as Panama-Hat Blocker (hat & cap); Strawhat Blocker (hat & cap); or according to production stage as Trimming-Department Blocker (hat & cap). When performing final finishing operations in addition to blocking, such as brushing hats and clipping loose threads, may be known as Set-Off Blocker (hat & cap).
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

580.685-010 BRIM-STRETCHING-MACHINE OPERATOR (hat & cap) alternate titles: brimmer blocker; brimming-machine operator; brim stretcher
Tends machine that stretches lower part of unfinished hat body to form brim: Immerses hat bodies in hot water to soften material preparatory to stretching. Moves lever to adjust angle of metal ribs under hat-shaped block of machine to control specified brim width and crown height. Slips softened hat body onto block and over ribs. Presses button or depresses pedal to raise hat block and start movement of machine fingers that stretch brim. Releases pedal, turns body on block, and repeats stretching operation until brim is formed around entire hat body. Measures width of brim to ensure conformity with specifications, using ruler. Removes hat body from machine and places hat body on rack.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 78

580.685-014 CLOTH DRIER (knitting) alternate titles: cloth spreader; drier tender; drying-machine operator; steaming-machine operator
Tends machine that stretches and dries knitted material: Inserts spreader of specified width into material. Pulls end of material through drying chamber equipped with fans and inserts material between feed rolls of machine. Starts fans which circulate heat and rolls which pull wet material over spreader and through chamber to stretch and dry knitted material.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

580.685-018 COLLAR-TURNER OPERATOR (garment) alternate titles: collar-folder operator; collar-shaper operator
Tends machine that reverses partially finished collars on garments, such as ladies' dresses, and flattens seams of collars: Folds collar back along seam and draws folded seam over lower jaw of machine. Depresses pedal that lowers upper jaw of machine to spread seam. Grasps and moves collar back and forth over lower jaw to flatten seam. Releases pedal and removes collar.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

580.685-022 COTTON-BALL-MACHINE TENDER (protective dev.)
Tends battery of machines that comb cotton fibers into sliver and form sliver into balls for use as surgical sponges: Positions roll of cotton on carding machine and threads end through rollers. Starts machine that forms sliver. Threads sliver through rollers of machine that forms and ejects balls into bag. Adjusts machine to control size and weight of cotton balls. Sets counter and starts machine. Removes bag when filled with specified number of balls. Folds over flap and seals bag in container. Removes cotton fibers from carding machine, using stripping roller [CARD STRIPPER (textile)].
GOE: 06.02.06 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

580.685-026 HAT-BLOCKING-MACHINE OPERATOR I (hat & cap) alternate titles: blocking-machine operator; stamper blocker; steam blocker; tipper; western-felt-hat blocker; wet crown-blocking operator
Saturates felt cones in water and tends machine that stretches felt cones to form hat shapes: Places felt cones in container of hot water or on racks in steam cabinet to condition cones. Removes conditioned cone from water or cabinet and pulls cone onto hat block. Positions hat block on holding device in bed of machine. Presses levers to close machine claws that grasp rim of cone and pull rim outward to form brim. Starts ram that forces block upward into cone to shape crown. Presses lever or depresses pedal to spray water and force air through cone, or pours water over cone to stiffen cone. Releases levers and removes hat from machine. Places hats on wheeled racks. May be designated according to type of hat blocked as Wool-Hat Blocker (hat & cap).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 78

580.685-030 HAT-BLOCKING-MACHINE OPERATOR II (hat & cap)
Tends double-unit hat-blocking machine that shapes white twill Navy hats: Places hat on bottom part of block (mold), pushes block forward, and pulls lever to lower upper part of block over lower section. Opens air valve that inflates rubber lining and presses crown outward against sides of block to shape (block) hat. Moves lever to raise upper section of block, releases air pressure, pulls lower section to starting position, and removes shaped hat. Stacks hats or table.
GOE: 06.04.05 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

580.685-034 HOOKING-MACHINE OPERATOR (textile)
Tends machine that tightens twist in skeins of dyed thread: Opens and examines skeins of thread to ensure that thread matches specifications of work order. Hooks one end of skein to upper hook of machine and hooks other end to lower hook on movable beam of machine. Releases clutch that lowers beam and stretches skein. Turns crank that rotates beam and twists skein. Feels skein to determine if twist has been tightened as specified.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

580.685-038 HYDRAULIC BLOCKER (hat & cap) alternate titles: hydraulic-press operator; presser
Tends hydraulic press that shapes hats, hatbrims, or crowns: Selects shaping die, according to specifications, and positions die in recess of machine bed. Positions saddle (rubber hat-shaped liner) in die to protect hat during pressing. Pours water into tank of machine and turns valve to regulate level of water in rubber pressing bag, attached to machine ram, according to size of hat to be shaped. Inserts hat, crown down, into die. Moves lever to lower ram and water-filled bag against brim or into crown to press hat, brim, or crown. May be designated according to hat material as Straw-Hat-Hydraulic-Press Operator (hat & cap); according to hat part shaped as Brim Presser (hat & cap) II; Crown Presser (hat & cap); or according to processing stage as Blocking-Machine Operator, Second (hat & cap); Hydraulic-Press Operator, First Pressing (hat & cap). When tending machine that shapes hatbrims between flange (brim-shaped collar) and water-filled bag, is known as Hydraulic-Brim-Flanging-Machine Operator (hat & cap). May be designated: Band-Plating-Machine Operator (hat & cap); Panama-Hat-Hydraulic-Press Operator (hat & cap); Wool-Hat Hydraulicker (hat & cap); Woven-Paper-Hat-Hydraulic-Press Operator Finisher (hat & cap).
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 78

580.685-042 MOLDER (hat & cap) alternate titles: brim molder; stamper
Tends machine that presses hat-body material, such as crinoline, paper, or buckram between dies to form hat crowns or cap visors: Places sheets of precut material between layers of wet cardboard or dampens material with sponge to soften material preparatory to pressing. Stretches softened material over heated crown-shaped lower die and depresses pedal, causing upper die to descend and press material into shape of hat crown.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

580.685-046 ROLLER OPERATOR (hat & cap)
Tends machine that forms unfinished hat bodies, and separates formed bodies for further processing: Guides sheets of wool or other hat material onto revolving egg-shaped roller that winds material into shape of roller. Presses cutting disk or knife against center of revolving roller or stops machine and severs material with scissors to cut formed material into two hat bodies.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

580.685-050 STAKER, MACHINE (leather mfg.)
Tends machine that flexes (stakes) and stretches leather to make leather pliable: Positions leather between rotating belt and jaws of reciprocating arm. Starts machine to reciprocate arm that flexes and stretches leather. Shifts position of leather on belt to flex entire area. Turns wheel to regulate stroke of arm. May tend machine that stretches hide on frames and be designated Stretching-Machine Tender, Frame (leather mfg.).
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

580.685-054 STRETCHER (hat & cap)
Tends machine that stretches and softens fur pelts that are too hard or rumpled to pass through fur-shaving machine: Depresses pedal to separate power-driven rollers of machine and inserts skin between rollers. Releases pedal and holds skin as corrugated rollers stretch skin, softening it for further processing into hatter's fur.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

580.685-058 STRETCHING-MACHINE OPERATOR (tex. prod., nec)
Tends machines that stretch nets and tighten knots by either of following methods: (1) Places end of net over straightening roller and threads net through tension rollers of machine. Turns crank to adjust tension of net. Observes net on trial run to determine tightness of knots. Unfolds and straightens net as net is drawn into machine. (2) Threads holding rods through meshes at each end of net. Places rod in channel of stationary block. Stretches net by hand and places second rod in channel of winch block. Starts electric winch to stretch net to specified tension. May tie and pack nets in cartons for shipment. May attach cork or lead lines on fishing nets. May be designated according to type of machine used as Depth-Stretching-Machine Operator (tex. prod., nec); Vertical-Stretching-Machine Operator (tex. prod., nec).
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

580.685-062 TIP STRETCHER (hat & cap) alternate titles: tipper; tipping-machine operator
Tends machine that kneads tips of felt hat cones to form and shape crowns of hats: Soaks cones in trough of heated water. Selects hat form according to size specifications, positions form on machine bed, and moves lever to secure form. Pulls soaked cone onto form and depresses pedal to raise form and cone against moving machine fingers that knead tip of cone, stretching cone onto form and shaping crown. Grasps bottom of cone and rotates cone to ensure symmetrical shaping of crown. Removes resulting hat body and pulls it onto hat block to smooth crown and set shape.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

580.685-066 TENTER-FRAME OPERATOR (textile) alternate titles: cloth stretcher; drier tender; drying-machine tender; framing-machine tender; hot-frame tender; open-tenter operator; pin-tenter operator; steam-frame operator; tentering-machine operator
Tends *tenter frame* that stretches cloth in width, removes wrinkles, and dries cloth after processes, such as dyeing or finishing: Trucks folded cloth to feed-end of machine or mounts roll of cloth at scray, using hoist. Sews cloth end to leader in machine, using sewing machine. Turns wheel to adjust clips or pins to stretch cloth to specified width. Moves lever to control speed of cloth through drying cabinet, to *swing-folding attachment*. Measures width of cloth emerging from machine, using yardstick. Records yardage clock readings. May replace full trucks with empty ones and ravel seams to separate truck loads of cloth. May tend tenter frame equipped with weft-straightening attachment.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 80

580.687-010 ORIENTAL-RUG STRETCHER (any industry) alternate titles: rug stretcher
Stretches oriental rugs to restore shape of rug and remove wrinkles or misshapen areas of rug: Places rug face down on floor or table. Pulls edges, by hand or using stretching device, and places weights on rug or tacks edges of rug to floor or table. Applies warm sizing solution to back of rug, using brushes, spray gun, or sprinkler. Removes weights or tacks when sizing has dried.
GOE: 06.04.27 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

580.687-014 HIDE STRETCHER, HAND (leather mfg.) alternate titles: laborer, drying department
Smooths, stretches, and dries cowhides, using slicker (squeegee-type device) and steam-heated tables to extend and thin hides for further processing: Carries wet hide from rack to steam-heated table and manually extends and smooths hide on table. Rubs hide with slicker to stretch and smooth hide and to remove excess water. Stretches hides on additional tables and observes steam rising from hides to determine when hides are dry. Loads dry hides onto rack to store hides for further processing. Counts and records number of hides stretched and dried to maintain production record. Cleans steam-heated tables, using water hose and broom.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 86

581 SEPARATING, FILTERING, AND DRYING OCCUPATIONS

This group includes occupations concerned with removing moisture, chemicals, and other substances from materials by draining, straining, squeezing, centrifugal force, gravitation, precipitation, or agitation; and removing moisture by exposure to heat or air.

581.585-010 CARBONIZER (textile)
Tends *range* that reduces and chars vegetable matter in woolen fabrics to facilitate removal of matter: Pushes trucks of cloth into feeding position and sews cloth end to lead cloth, using portable sewing machine. Turns handwheels to adjust width guides and tension devices according to width of cloth. Turns valves to admit water and acid into wet-out and carbonizing troughs. Sets thermostat to control temperature in charring unit. Starts range and turns handwheel to regulate movement of cloth through range, according to weight of fabric. Tests strength of acid solution by titration or with hydrometer. Admits water or acid into carbonizing trough to maintain uniform strength of carbonizing agent. Records titration results or hydrometer readings, style number, and yardage of cloth processed. Cleans lint from filters of charring unit, using vacuum hose.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

581.586-010 HEAT CURER (textile)
Loads and unloads oven that cures color in screen-printed textiles: Hangs articles on rack and pushes rack into preheated oven. Removes articles from oven after specified time. Counts and records number of articles cured and packs articles into boxes.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

581.685-010 CLOTH SANDER (textile) alternate titles: sander; sanding machine operator
Tends machine that breaks up and softens size, and imparts brushed effect to surface of fabric: Pushes truck or roll of cloth into feeding position and sews end to leader cloth, using portable sewing machine. Turns valve to admit steam into *drying can*. Starts machine that passes cloth around drying can to break up and soften size in fabric, and between emery rollers that abrade surface of fabric to impart brushed effect. Positions handtruck to receive cloth from *swing-folding attachment*.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

581.685-014 DRIER (garment)
Tends curing oven that dries and cures finish applied to garments, such as skirts and suits: Hangs garments on hooks of conveyor rack and pushes rack

into oven. Turns knobs to set time, temperature, and humidity controls. Removes garments from oven at end of cycle for further processing.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

581.685-018 DRIER OPERATOR III (plastic-synth.) alternate titles: drying-machine operator; drying-room operator

Tends drier in which bobbins or skeins of synthetic yarn are dried prior to finishing: Hangs bobbins or skeins on poles supported by wheeled frames or by continuous chain conveyor. Moves controls to attain specified temperature in dryer and to start chain conveyor if drier is so equipped. May be designated according to article dried as Bobbin Drier (plastic-synth.); Skein Drier (plastic-synth.). May perform duties of WASHER (plastic-synth.) in plants where washing, bleaching, and drying are combined into single operation.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

581.685-022 DRY-CANS OPERATOR (textile) alternate titles: can-drier operator; cans operator; can tender; cloth-dry-can operator; drier tender; drying machine tender

Tends *drying cans* that dry cloth following processes, such as washing, desizing, or finishing: Positions truck of folded cloth at feed-end of machine. Pins cloth end to preceding bolt or sews ends together with sewing machine. Turns valve to admit steam into revolving cans that dry fabric as fabric is drawn around and between cans. Moves lever to regulate speed of revolving cans to adjust drying time according to cloth thickness. Turns wheel to change cloth tension according to type or style of fabric.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

581.685-026 DRYING-MACHINE OPERATOR, PACKAGE YARNS (textile) alternate titles: drier operator; kier drier; oven-drier tender; package drier; port drier

Tends machines that dry packages of dyed or bleached yarn by any of following methods: (1) Removes yarn packages from yarn stand and places them on drying-oven rack. Sets temperature control gauges according to specifications and pushes rack of yarn into drying oven. (2) Positions loaded yarn stand removed from dyeing machine over hot-air port, using power hoist. Sets controls to direct air through holes in yarn stand to dry yarn. (3) Loads stand of yarn into kier, using power hoist. Closes lid and tightens bolts, using wrench. Sets controls to circulate hot air through yarn. Removes dried yarn from drying machine, inspects packages for dyeing defects, and packs packages in cases for storage or shipment. May fasten case with metal band and truck case to warehouse.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

581.685-030 DRYING-MACHINE TENDER (textile) alternate titles: curing oven tender; tubing drier

Tends machine that dries cloth without tension to give cloth a soft hand, or cures finish applied to cloth: Positions trucks of cloth at feed end of machine. Laps end of cloth over feed roller or ties end of cloth to leader in machine. Turns knob to set temperature control gauge according to instructions. Moves lever to start machine and regulate speed of cloth through drying cabinet. Manually straightens cloth entering machine to remove wrinkles. Cleans machine, using vacuum hose. May doff cloth from *swing-folding attachment* at delivery end of machine. May mark lot numbers on cloth ends with crayon. May be designated according to type of drying machine as Loop-Drier Operator (textile); Suction-Drum-Drier Operator (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

581.685-034 DRYING-UNIT-FELTING-MACHINE OPERATOR (tex. prod., nec) alternate titles: continuous-drier operator; drier

Tends drying chamber that removes moisture from felt strips: Opens steam valves to heat chamber to specified temperature and opens and closes vents in chamber to control ventilation. Attaches leading edge of felt strip to hooks of conveyor and starts machine to draw strip through drying chamber. Clamps leading edge of strip to winding drum as strip emerges from chamber. Cuts strip with knife when specified amount of felt is wound on drum.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

581.685-038 EXTRACTOR OPERATOR (any industry) alternate titles: centrifugal-extractor operator; clothes wringer; drying-machine tender; extractor; rapid-extractor operator; wringer

Tends centrifugal extractor that removes surplus moisture or dye from materials, such as wet cloth, garments, knit goods, linens, raw fibers, or yarn: Pushes loaded handtrucks or portable extractor baskets into position at machine or under hoist. Lifts material from handtruck, or raises baskets, using chain or electric hoist to load extractor. Distributes material uniformly in extractor baskets to balance load and reduce vibration. Observes tilt of portable baskets to verify balance when using hoist. Closes cover and starts machine. Unloads materials into handtruck for transfer to subsequent work station. May unload washing machines. May work with raw cotton and be designated Extractor Tender, Raw Stock (textile). May tend drying machine [TUMBLER OPERATOR (laundry & rel.) 369.685-034]. May tend machine that extracts moisture from cakes of rayon or other synthetic yarn and be designated Cake Wringer (plastic-synth.).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 78

581.685-042 EXTRACTOR OPERATOR (textile) alternate titles: suction-machine operator; vacuum-extractor operator

Tends vacuum extractor that removes excess moisture from washed, bleached, or dyed cloth by either of following methods: (1) Mounts roll of cloth onto brackets at back of machine. Pins cloth to leader to pass cloth over suction tube and between rollers. Starts vacuum pump and opens drain valve. Regulates roller speed according to thickness of cloth. Places empty truck under *swing-folding attachment* to receive processed cloth and doffs full truck. (2) Mounts roll of cloth, wound on perforated beam, on machine, using hoist. Connects one end of beam to suction tube and turns handwheel to place cap over other end to create vacuum chamber within beam. Starts vacuum pump and opens drain valve to extract moisture. Transfers roll to takeoff brackets, using hoist. Threads end of cloth over rollers and through swing-folding attachment, and straightens cloth feeding into handtruck.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

581.685-046 RAW-STOCK-DRIER TENDER (textile) alternate titles: fiber-drier operator; stock-drier tender

Tends machine that completes drying of dyed raw cotton, wool, or synthetic fibers, from which excess liquid has been extracted: Feeds raw stock to conveyor by hand or turns switch to control vacuum pipe through which stock is fed onto conveyor. Moves lever to regulate speed of screen or apron which carries loose fibers through drying cabinet. Sets gauge to control drying temperature. Cleans equipment, using compressed air and steam.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

581.685-050 RUG-DRYING-MACHINE OPERATOR (carpet & rug)

Tends machine that dries spools of dyed carpeting: Positions spools of wet material on machine brackets and ties ends to asbestos strips in machine. Turns switches to regulate speed of intake and exhaust blowers and to obtain specified temperature from infrared and gas heat units. Starts machine and observes as carpet emerges from discharge end and winds onto spools to determine if drying meets specifications. Observes gauges and adjusts switches to maintain specified temperature in drying chamber. May run carpet through *swing-folding attachment* as carpet emerges from machine.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

581.685-054 SKEIN-YARN DRIER (textile) alternate titles: drying-machine operator; steam-drier operator; yarn-dry-room worker

Tends machine that dries skeins of yarn: Turns valves to set temperature of drying cabinet according to specifications. Starts fans to circulate heat in drying cabinet. Places yarn skeins on conveyor that conveys yarn through cabinet, hangs skeins on drying rack and pushes rack into drying cabinet, or loops skeins over poles and places poles on conveyor that conveys yarn through cabinet. Removes dried skeins of yarn from conveyor, racks, or poles. Shakes tangled skeins of yarn before and after drying to straighten skeins.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

581.685-058 STEAM-DRIER TENDER (carpet & rug)

Tends equipment that steams and dries fiber mats to untwist yarns and impart fuller surface to mat: Adjusts steam valves to regulate flow of spray on mats. Pushes button to start conveyor that moves mats through steam and drying cabinets. Loads mats on conveyor and observes thermometers and adjusts controls to maintain specified temperature in cabinets.
GOE: 06.04.16 STRENGTH: H GED: R3 M2 L3 SVP: 5 DLU: 77

581.685-062 TUMBLER TENDER (knitting)

Tends tumbler that dries and fluffs knitted garments or cloth after washing or dyeing: Loads garments or cloth into drum of machine. Turns knob to set temperature gauge and turns timing dial to set length of drying cycle according to type of material. Starts machine. Unloads machine at end of drying cycle. May lap end of cloth over reel and start reel to wind cloth in skein before loading drier. May separate garments according to size, style, and color. May inspect garments to detect color streaks.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

581.685-066 VACUUM-DRIER OPERATOR (tex. prod., nec)

Tends vacuum drier that removes moisture from felt pads: Pushes dollies loaded with pads into tunnel of drying chamber. Lifts pads onto drying racks. Closes airtight doors and starts vacuum pumps and electric fans. Opens steam valves to adjust heat of drying chamber to specified temperature. Loads dried pads on dollies for further processing.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

581.685-070 WHIZZER (hat & cap) alternate titles: extractor; whizzer operator

Tends machine that spins felt hat bodies to remove excess water: Pulls bodies over hat-shaped holder of machine or places bodies in basket. Presses button or depresses pedal to start holder or basket spinning, removing excess water from bodies. Releases pedal to stop machine and feels hat bodies to ascertain dryness. May soak hat bodies in waterproofing solution.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

581.685-074 WINDING-RACK OPERATOR (tex. prod., nec)

Tends equipment in dry room that winds coated fabrics into rolls: Aligns track-mounted *windup rack* with dry room alley to receive coated cloth. Cleans foreign material from water-cooled rollers, using rag, solvent, and scraper Threads cloth from dry room through rollers, and sews cloth to leader on windup core, using automatic sewing machine. Adjusts control to synchronize winding tension with cloth feed to avoid wrinkles, turned edges, and tears. Places cloth-support sticks on handtruck as sticks arrive from dry room. Notifies supervisor of recurring coating defects. Lifts finished roll from rack onto dolly using hoist.

GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

581.685-078 FLAT DRIER (tex. prod., nec)
Tends equipment that dries felt strips, assisted by another worker: Removes work ticket from rolls of felt and records on ticket drying time and temperature required to dry felt. Places felt rolls on holding fixture of drying chamber, and turns handcrank to adjust carrier rack of chamber to width of felt. Unrolls felt and attaches edges of entire roll to spikes on both sides of carrier rack, using wooden hammer. Pushes carrier rack with felt into drying chamber, closes chamber door, and turns valves to obtain specified steam pressure and temperature. Presses button to start fan to circulate heat evenly in chamber, and turns dial of timer to set length of drying cycle, according to thickness of felt. Observes gauges to maintain specified chamber temperature and steam pressure. Closes steam valve and opens chamber door to cool drying chamber. Feels felt to ascertain dryness. Rerolls felt for further processing.
GOE: 06.04.16 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 86

581.685-082 DRUM-DRIER OPERATOR (plastic-synth.)
Tends drum-drier that removes moisture from polyester chips prior to processing chips into synthetic fibers: Pushes button and turns lever to start and rotate drum-drier into position for loading. Positions specified number of boxes of polyester chips on hydraulic loader, and pushes button to dump chips into loader bin. Spreads chips evenly in bin while vacuum system sucks chips into drum-drier. Presses button to rotate drum-drier for specified time to dry polyester chips. Opens tops of portable storage bins, using wrench, positions bins underneath unloading spout of drum-drier, using forklift, and opens spout to fill bins with chips, using wrench. Secures tops of bins, and attaches nozzles of nitrogen gas supply to filled bins to maintain chips moisture-free while in bins. Transports bins to storage, using forklift; or places bins on elevator to raise bin to upper floor, removes top of chip silo, lowers bins into silo, using hoist, and opens valves on bins to empty chips into silo for further processing. Obtains chip samples at specified times for chemical analysis. Fills out inventory cards and attaches cards to side of bins. Removes cards when emptying bins, and submits cards to supervisor. Maintains log of drum-drier start-up times, type of chips loaded, and name for plant record.
GOE: 06.04.16 STRENGTH: V GED: R2 M1 L1 SVP: 3 DLU: 86

581.686-010 BLOWER FEEDER, DYED RAW STOCK (textile)
Feeds loose, partly dried textile fibers into pipe through which fibers are blown to drier or storage bin.
GOE: 06.04.40 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

581.686-014 DRIER (knitting) alternate titles: drying-machine tender
Feeds and off bears oven drier that dries and sets knitted articles after *boarding II* and dyeing: Dumps articles from bag onto table and arranges articles in stacks. Shakes wrinkles from articles and places articles on conveyor that feeds articles into drier. Off bears conveyor and folds and stacks articles on tray.
GOE: 06.04.16 STRENGTH: L GED: F2 M1 L1 SVP: 2 DLU: 77

581.686-018 DRIER ATTENDANT (garment)
Hangs garments, such as skirts and suits, on hooks suspended from chain conveyor that carries garments through curing oven to dry and cure finish applied to garment. Removes cured garments from conveyor onto rack for further processing.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

581.686-022 DRYING-OVEN ATTENDANT (hat & cap) alternate titles: dryer feeder; skin-drying-room attendant
Lays wet, freshly carroted pelts in trays on conveyor chain that carries pelts through heated drying chamber to prepare fur for manufacturing felt hats. May push handtrucks loaded with skins into drying room and lay out skins on drying trays.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

581.686-026 DRYING-RACK CHANGER (boot & shoe)
Feeds finished lasted shoes into drying chamber to dry and stiffen leather and shape shoes: Removes lasted shoes from bar racks and places shoes on racks having padded rests. Starts conveyor track and pushes rack of shoes onto moving track that carries rack into drying chamber. Removes rack at other end of chamber after specified time. May set scale to adjust drying room temperature according to hygrometer readings.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

581.686-030 DUST-MILL OPERATOR (tex. prod., nec)
Feeds feathers, used in stuffing mattresses, pillows, and cushions, into beating machine that removes dust and dirt from feathers and discharges feathers into bag. Removes filled bag from machine outlet pipe and replaces filled bag with empty bag. May feed feathers into machine that fluffs feathers preparatory to removal of dust and dirt.
GOE: 06.04.39 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

581.686-034 FEATHER-DRYING-MACHINE OPERATOR (tex. prod., nec)
Loads feathers, used for stuffing pillows and cushions, into steam-heated drying tank or centrifugal drier to dry feathers after washing. Removes feathers from drier by hand or opens outlet valve.
GOE: 06.04.09 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

581.686-038 TRAY DRIER (knitting) alternate titles: drying-machine operator
Tends machine that dries preboarded and dyed hose in perforated trays: Removes folded hose from dye bag and smooths out wrinkles. Places hose into tray of drying machine and pushes filled tray into drying cabinet. Pulls tray from cabinet after hose have dried for specified time. Removes and stacks hose on tray for pairing.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

581.686-042 WET-COTTON FEEDER (textile)
Feeds dyed cotton or synthetic raw stock into hopper of extractor that removes liquid by forcing cotton through rollers. Cleans machine, using steam and airhose.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

581.687-010 BURLAP SPREADER (tex. prod., nec)
Spreads washed, ripped-open, second-hand burlap bags and washed burlap strips out of doors or hangs articles on racks to dry.
GOE: 06.04.27 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

581.687-014 DRYING-ROOM ATTENDANT (hat & cap)
Hangs racks of hat bodies in room for drying. Places rack of hats on hangers and turns switch to activate hot-air blowers. Removes dried hats onto handtruck for further processing.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

581.687-018 DRYING-UNIT-FELTING-MACHINE-OPERATOR HELPER (tex. prod., nec) alternate titles: continuous-drier helper
Assists DRYING-UNIT-FELTING-MACHINE OPERATOR (tex. prod., nec) to tend machine that removes moisture from felt strips: Pushes dollies containing filled drums (spools) of wet felt to drying chamber, and clamps drum to spindle of drying equipment. Loads drums of dried felt on dollies, and pushes dollies to designated area for further processing of felt. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.16 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

581.687-022 SPREADER (hat & cap) alternate titles: stretcher and drier
Stretches fur pelts on frames and hangs pelts in hot room for drying after *carroting*, preparatory to removing fur for felt.
GOE: 06.04.27 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

582 WASHING, STEAMING, AND SATURATING OCCUPATIONS

This group includes occupations concerned with applying water and steam, and chemical agents to materials; and thoroughly soaking, filling, impregnating, or treating materials with substances to the point where no more can be taken up. Occupations concerned with steaming and saturating materials in order to shrink them are included in Group 587.

582.130-010 SUPERVISOR, GLAZING DEPARTMENT (textile)
Supervises and coordinates activities of workers engaged in applying finishing solution to thread for strength and luster: Directs machine setup, adjustment, and repair activities, and mixing of finishing compounds. Trains new employees and evaluates work performances. Examines thread for excess moisture and firmness of finish. Requisitions machine parts and supplies. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

582.131-010 DYE-HOUSE SUPERVISOR (leather mfg.)
Supervises and coordinates activities of workers engaged in bleaching, dyeing, tanning, and washing fur pelts: Prepares bleaching, dyeing, and tanning solutions according to specified formula. Examines processed pelts and reports irregularities in dyeing or tanning process to chemist and management. Sets thermostat to regulate temperature in drying room according to type of pelt. Trains workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to process as Bleaching Supervisor (leather mfg.); Dyeing Supervisor (leather mfg.); Tanning Supervisor (leather mfg.).
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

582.131-014 DYER, SUPERVISOR (knitting; tex. prod., nec; textile) alternate titles: dye-house supervisor; superintendent, dyeing
Supervises and coordinates activities of workers engaged in dyeing textile goods: Compares customer's sample with standard color cards to identify color. Selects formula sheet which corresponds with standard color card, or prepares formula sheet, employing knowledge of characteristics of dyes, pigments, and resins to produce required properties and shade at lowest cost. Schedules production, according to colors required, processes used, and type of goods, to ensure efficient production in dyeing department. Requisitions dyestuffs and materials needed for each order. Compares dyed products with standards to ensure adherence to specifications. Confers with customers to adjust complaints, and with management to plan production schedule. Trains workers in operation of machines and equipment. May develop new colors and dye samples, employing standard laboratory techniques. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 05.10.07 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 81

582.132-010 AGING-DEPARTMENT SUPERVISOR (textile)
Supervises and coordinates activities of workers engaged in aging printed cloth: Trains workers in operation of machines and equipment. Requisitions supplies. Confers with other supervisory personnel to coordinate activities of individual departments and advise on safety and housekeeping improvements.

Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

582.132-014 SOAPING-DEPARTMENT SUPERVISOR (textile)
Supervises and coordinates activities of workers engaged in washing and soaping cloth: Trains workers in operation of machines and equipment. Confers with other supervisory personnel to coordinate activities of individual departments. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 6 DLU: 77

582.132-018 SUPERVISOR, TAN ROOM (leather mfg.)
Supervises and coordinates activities of workers engaged in tanning hides. Selects and mixes ingredients, such as chrome solution, bicarbonate of soda, and water to prepare tanning solution, following formula. Trains workers in operation of equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

582.132-022 SUPERVISOR, VAT HOUSE (chemical; leather mfg.)
Supervises and coordinates activities of workers engaged in washing, liming, and treating skins, splits, fleshings, and trimmings used in making glue or leather: Directs loading of stock into vats and wash mills. Estimates weight of stock to determine quantity of lime required to treat stock, and directs LIMER (chemical; leather mfg.) to pump specified amount into vats. Examines shredded stock for conformance with specification and returns rejected stock to chopper. Trains workers in operation of equipment. Requisitions lime and acids. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

582.261-010 COLOR MATCHER (knitting) alternate titles: dyer assistant
Verifies color of hosiery dye lots against standard and modifies dyeing process on basis of knowledge of dyes and dyeing time: Passes sample hose from each dye lot through steam to fix color. Compares color with master sample and approves lot if color matches standard. Determines dyeing time and weighs out additional dyes or reducing agents for lots not meeting specifications. May assist DYER, SUPERVISOR (knitting; tex. prod., nec; textile) 582.131-014 to schedule dyeing of assembled dye lots and to verify color of new styles against customer's color swatch.
GOE: 06.01.05 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

582.362-010 PANELBOARD OPERATOR (textile)
Controls programmed equipment to dye yarn or cloth: Mounts specified cycle-control template (program master) in timing track. Turns crank to align starting point on template with vacuum/electric controls, and temperature tracer with profile cut in top of program master. Transfers dye formula to DYE WEIGHER (any industry) 550.684-014 and verifies quantities mixed. Presses buttons on panelboard to begin fill-cycles in specified machines and notifies DYE WEIGHER (any industry) to transfer dye and chemical solutions to machines when panelboard lights indicate yarn or cloth loading is complete and processing cycle in operation. Observes panelboard lights, gauges, graphs, and dials to determine progress of dyeing cycles and to detect malfunctions. Presses buttons and turns knobs to stop automatic cycle to obtain samples, fill or drain machines, adjust variable limits of machine water-level controls, or to resume processing cycle to include washing and stabilizing dye in yarn or cloth. Tests solutions for acidity or alkalinity strengths, using pH testing equipment, and records results onto formula. Notifies supervisory personnel of malfunctions, variations from processing standards, and completion of processing cycles. Records processing data onto dye formulas. May develop and maintain dye formulas.
GOE: 06.04.16 STRENGTH: L GED: R3 M1 L2 SVP: 4 DLU: 77

582.362-014 DYE AUTOMATION OPERATOR (textile)
Controls and monitors programmed electronic equipment to bleach, dye, and finish cotton and synthetic sewing threads: Confers with operator of dye machines to obtain information needed to process customer orders, and records data, such as number of dyeing machines to be used, production order numbers, and color numbers specified for dye orders. Selects programmed procedures based on knowledge of dyeing processes and familiarity with affinity of dyes to specific thread types, or consults procedural manuals for data. Depresses keys of data-entry unit to enter required data into computer. Observes display screen to verify data entered, to ascertain computer response to instruction entered, and to determine compliance with procedural steps. Depresses keys to edit instructions when necessary and to input answers for primary or alternate steps in procedure. Hangs tags on dye board, during shift, to indicate steps in dyeing process for each machine. Confers with workers to determine reasons for delays in dyeing process, and examines dyeing machines and equipment to ascertain reason for malfunctions. Notifies supervisor of malfunctions, and records reasons for delays in log. Receives instructions from supervisor, such as alteration of dyeing temperature, omission of specific steps in dyeing process, or repetition of specific steps. Keys in dyeing instruction changes. Confers with operator on previous shift to ascertain drying steps to complete dyeing in progress.
GOE: 06.02.16 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 86

582.384-010 DYE-LAB TECHNICIAN (knitting)
Dyes knitted socks and sample cloth, according to dye formulae, using sample dyeing equipment and steam table for verification that products conform to company specifications: Computes quantity of dyes required for machin
specified capacity, using desk calculator and dye formula. Gathers, we
measures, and mixes dyes and chemicals, using scales, graduated cylin
measuring cup, and titration cylinder. Dyes individual socks, using steam t
Flips switches and turns valves and handwheel to prepare sample tub dye
and adds specified quantities of acid and dye, to achieve required pH level
specifications for dye contrast and color intensity, to prepare sample cloth
sock to be inspected. Presses buttons to activate and deactivate drum of ex
tor to remove excess moisture from machine and dyed sample cloth. Sub
dyed sample to supervisor for inspection.
GOE: 02.04.01 STRENGTH: M GED: R3 M3 L2 SVP: 5 DLU: 86

582.387-010 COLOR CHECKER, ROVING OR YARN (textile) alter
titles: shade-and-quality checker;
Tests dyed roving or yarn to determine fastness of dye and uniformit
color: Winds specified quantity of yarn or roving onto reel and binds sa
skein with bleached cloth band. Boils test sample in detergent solution for s
ified length of time. Dries sample in humidity and temperature controlled c
Winds dried sample onto sample card and compares test sample with stan
sample to detect variations in color. Examines bleached cloth band for blee
of dyes. Records test results and reports variations from standards to M
AGER, QUALITY CONTROL (profess. & kin.). Files samples accordin
color and type of material.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

582.482-010 COLORER, HIDES AND SKINS (leather mfg.) alternat
tles: colorer, machine; dye mixer; dyer and washer;
weigher; leather colorer
Operates equipment to color and soften hides: Weighs and mixes spec
ingredients with water to prepare coloring solution. Pours solution into tra
drum and adds oil (softening agent). Pulls hide through tray until spec
color is obtained or places hides in drum and starts machine to tumble h
in solution for specified time. Adds ingredients, such as bicarbonate of s
formic acid, or oil to solution at specified intervals. May be designated acc
ing to specialty as Leather Softener, Drum (leather mfg.).
GOE: 06.02.16 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 77

582.482-014 TANNER, ROTARY DRUM, CONTINUOUS PROC
(leather mfg.)
Operates rotary drum to remove hair and other solubles from hides or s
and convert hides or skins into leather or glue during continuous process: L
drum with hides, skins, or other animal stock. Turns valves to admit water
steam to drum. Weighs and mixes specified amounts of lime, salt, and c
chemicals in mixing tank or drum, following formula, to prepare lin
deliming, pickling, and tanning solutions used in treating hides or skins. T
valve to transfer solutions to drum during specified processing cycles. M
lever to activate drum that cleans, washes, pickles, and tans hides or skins.
places solid door of drum with perforated door at specified intervals to t
waste from drum at completion of cycles. Verifies salinity and temperatur
solutions, using salinometer and thermometer. Transfers tanning solutio
drum and tans hides or skins [TANNING-DRUM OPERATOR (leather mf
May be designated according to process as Delimer (leather mfg.); L
(chemical; leather mfg.); Pickler (leather mfg.); Vat Tender (chemical).
GOE: 06.02.16 STRENGTH: H GED: R3 M3 L3 SVP: 5 DLU: 77

582.482-018 TANNING-DRUM OPERATOR (leather mfg.) alternat
tles: drum tender; pit tanner; retanner; tanner; tawer
Operates rotary drum containing tanning solution to convert hides and s
into leather, according to specifications: Weighs tanning agents, such as m
salts and sodium formate, following tanning formula. Loads agents and h
or skins into drum. Turns valve to fill drum with water, turns steam valv
heat water to specified temperature. Verifies temperature, using thermom
Locks drum door and moves lever to rotate drum for specified period of t
Removes drum door, replaces door with grating, and rotates drum to drain
ning solution through grating. May boil sample of tanned hide or skin in w
to determine thoroughness of tanning. May be designated according to typ
tanning solution used as Bark Tanner (leather mfg.); Chestnut Tanner (lea
mfg.); Chrome-Tanning-Drum Operator (leather mfg.); Oak Tanner (lea
mfg.); Quebracho Tanner (leather mfg.); Sumac Tanner (leather mfg.).
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

582.562-010 SLASHER TENDER (textile) alternate titles: sizer
Operates machine to saturate warp yarn with size and wind sized yarn
loom beam: Positions section beams onto creel with aid of another wo
using hoist. Gathers ends of warp together and ties warp to corresponding l
ers left in machine from previous run, or when machine is empty, bunches
together and threads yarn through size pot, around drying cylinders, and
loom beams. Inserts lease rods between alternate strands of yarn to prevent
from sticking together. Lays individual warp ends between teeth of expan
comb for even distribution across loom beam. Turns valves to admit size
vat and steam into drying cylinders. Sets yardage clock to indicate yardag
be wound on loom beam. Starts machine and observes flow of warp thr
machine to detect breaks and tangles in yarn. Disentangles yarn and ties br
ends with fingers. Feels yarn to verify adherence of size to yarn and en
that yarn is dry but not burned. Inserts *lease string* in warp yarn and sec
yarn ends with tape. Doffs loom beam onto handtruck and replaces with en
beam, using hoist. Records style number, yardage beamed, yarn breaks,

machine stops. May change temperature control chart on control panel. May clean machine. May process yarn for use on narrow fabric looms and be designated Warp-Spool Slasher (narrow fabrics).
GOE: 06.04.16 STRENGTH: H GED: R3 M2 L3 SVP: 6 DLU: 77

582.582-010 DYE-RANGE OPERATOR, CLOTH (textile) alternate titles: cloth dyer; dye feeder; dyeing-machine feeder; dye-range feeder; front tender

Operates feed-end of *range* to dye and dry cloth in open width: Trucks folded cloth to feed-end of machine or pushes roll of cloth onto brackets at scray. Sews cloth end to leader in machine, using portable sewing machine. Turns handwheel to adjust cloth guides. Turns valves to admit dye to dye pad from mixing tank. Sets thermostats to control temperature of dye in padder and hot air in drying box. Starts machines, observes control panel, and turns knobs to synchronize individual motor speeds. Reads yardage clock and records production, lot numbers, and running time. Turns valve to drain used dye from dye pad. Cleans padder and steambox with water hose. May mix dyes [DYE WEIGHER (any industry)] and add chemicals to dye bath. May be designated according to dye used as Indigo-Vat Tender, Cloth (textile).
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

582.585-010 AGER OPERATOR (textile)

Tends machine that passes printed or dyed cloth through steam and chemical fumes to develop and fix colors: Measures out and mixes chemicals with water in tank. Trucks cloth to feed-end of ager. Sews end of cloth to leader in machine, using portable sewing machine. Observes cloth entering machine to detect defects, such as holes and grease spots. Examines cloth emerging from machine to detect uneven or incorrect color shade and color runs indicating incorrect adjustment of steam and chemical flow. Turns valves to make adjustments. Pulls cloth having imperfections over edge of truck for later removal and ravels seams to separate lots. Marks aged cloth and records production. Stops machine, cools interior with water, and enters ager to rethread cloth that has torn out. May tear out patch of defective cloth for inspection by CLOTH PRINTER (any industry). May tend machine using steam only and be known as Endless-Steamer Tender (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.587-010 CHEMICAL-STRENGTH TESTER (textile) alternate titles: chemical checker; titrator

Tests and maintains strength of chemical solutions used in treating cloth: Dips sample of solution from finishing machine and titrates solution against known acid or alkali to determine strength, using burettes and chemical indicator, or tests specific gravity of solution, using hydrometer. Turns valve to admit liquid chemicals or scoops dry chemicals into finishing machine to maintain specified strength. Records test results. May be designated according to chemicals tested as Acid-Strength Inspector (textile); Caustic-Strength Inspector (textile).
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L2 SVP: 2 DLU: 77

582.665-010 CYLINDER BATCHER (textile)

Tends machine that draws cloth through softening solution and winds cloth onto perforated cylinder to prepare cloth for dyeing: Threads cloth from supply truck through softening bath, guides, and rollers to takeup cylinder or sews cloth to leader in machine, using portable sewing machine. Presses button to start machine and observes cloth for defects. Cuts out flaws and sews ends together by hand or with sewing machine. Removes full cylinder from machine, using chain hoist. Records yardage cloth reading onto work ticket. May tend *tenter frame* in tanden with cylinder batcher.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

582.665-014 DYE-REEL OPERATOR (textile) alternate titles: beck tender; cloth dyer; dye-beck-reel operator; dye-tub operator; dye-winch operator; piece-dyeing-machine tender; piece-dye worker; vat tender

Tends machine that bleaches or dyes cloth in *rope form*: Hangs cuts of cloth over reel above beck (dye tub). Sews ends of cloth together to form endless rope from each cut of cloth, using portable sewing machine. Sets gauges to control automatic cycle of washing, dyeing, and rinsing as instructed by DYER, SUPERVISOR (knitting; tex. prod., nec; textile) 582.131-014. Notifies DYE WEIGHER (any industry) 550.684-014 to release chemicals and dyes to dye tub. Cuts sample from cloth when dyeing cycle is near end and submits sample to DYER, SUPERVISOR (knitting; tex. prod., nec; textile) to determine if color meets specifications. Ravels seams connecting cloth ends after rinsing is completed. Starts reel to pull cloth out of dye tub. Guides cloth into truck. May unwind cloth from roll by machine so cuts of cloth may be separated for dyeing [ROLLING-DOWN-MACHINE OPERATOR (knitting; textile) 589.685-086]. May be designated according to type of cloth dyed as Knit-Tubing Dyer (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 80

582.665-018 JIGGER (textile) alternate titles: jig operator

Tends dye jig that passes cloth from one roll to another through vat of dye or other solution to scour, bleach, or dye cloth: Mounts roll of cloth on machine, using power hoist. Passes cloth under guide rollers in tank to *takeup roll*. Turns valve to fill tank with water and pours specified quantity of dye into tank or notifies DYE-WEIGHER HELPER (any industry) to release dye solution to dye machine. Sets thermostat to control steam for heating solution. Adds chemicals as instructed by DYER, SUPERVISOR (knitting; tex. prod., nec; textile) 582.131-014. Starts machine that passes cloth through dye bath or chemical solution, reversing direction of cloth until it has passed through solution specified number of times. Opens valve to drain solution from machine. Fills machine with water and rinses surplus dye from cloth by passing cloth through water as in dyeing. Doffs roll of cloth from dye jig, using power hoist. May weigh and mix dyees.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

582.665-022 SATURATION-EQUIPMENT OPERATOR (fabrication, nec) alternate titles: tank operator

Tends equipment that saturates continuous sheet of felt paper with asphalt to serve as carrier or backing for hard-surface floor coverings: Adjusts panelboard controls to pump and maintain specified level of asphalt in tank. Regulates machine to compensate for variations in penetration of saturant, according to visual examination, or as indicated on control panel gauge. Adjusts guides to align felt paper feeding through machine, using handtools. Examines continuous sheet of felt paper to detect tears or breaks as material passes through machine.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

582.665-026 SIZING-MACHINE-AND-DRIER OPERATOR (tex. prod., nec)

Tends machine that applies finish to felt or fabrics to increase thickness and bulk of material: Places roll of material in feed holder of machine, threads end through rollers, and attaches material to rewind spindle, or sews end of material to leader in machine. Fills trough with specified sizing and adjusts doctor or fills spray gun tank with specified sizing. Rotates air valve knob to adjust spray of size on fabric. Turns knob to admit steam to drying rolls, positions lever to set speed of machine, and starts machine. May turn knobs to regulate temperature and blowers in drying oven. May be designated according to fabric sized as Burlap-Sizing-Machine Operator (tex. prod., nec).
GOE: 06.04.16 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

582.682-010 FINISHING-MACHINE OPERATOR (narrow fabrics)

Operates machines to apply finishing solution to narrow fabrics, such as elastic, labels, ribbon, or tape: Measures and mixes ingredients for finishing solution in storage vat or can, following formula. Turns valve to admit solution to trough of machine or pours or dips solution from can into trough. Ties, pins, or staples ends of fabric to leader in machine or threads ends through rollers (pads) and *drying cans*. Feels finished fabric to determine degree of dryness and turns handwheels or knobs to regulate speed at which fabric passes through machine. Observes fabric finish to determine conformance to standards and turns handwheel or replaces weights to regulate pressure of rollers or drying cans.
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

582.684-010 PATCH FINISHER (textile)

Collects cloth samples during processing for use in determining conformance to dyeing specifications: Cuts patch from cloth in specified dye becks, using scissors. Bathes samples in saline and water solutions to set dye in cloth and remove excess moisture from cloth. Dries and steams sample, using drier and steamer. Dips sample in caustic or acid solutions to dissolve selected fibers from cloth, using tongs. Staples and submits samples to DYER, SUPERVISOR (knitting; tex. prod., nec; textile) 582.131-014 for analysis.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

582.684-014 SPOT CLEANER (garment; knitting) alternate titles: washer

Removes soil from garments, using either of following methods: (1) Examines garment to detect lint, loose threads, and soiled areas. Brushes lint and loose threads from garment. Sponges soiled areas with sponge or cloth saturated with cleaning fluid or soap and water. Removes excess fluid or soap from garment, using damp cloth. Spreads garment on bench or table to dry. (2) Examines garment for soiled area and places garment on buck (padded table) of machine. Depresses pedal to force steam through buck and hose and guides nozzle of hose over soiled area. Releases pedal to stop steam and depresses pedal to circulate hot air through buck and hose to dry garment and prevent formation of cleaning rings. May clean and dry soiled garments, using spray gun. May trim excess material from seams and frayed edges of garment, using scissors. May hang garments on hangers. May attach tags and labels to garments.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-010 BACK WASHER (textile)

Tends machine that washes, rinses, and dries sliver to remove impurities, excess dye, and odors: Places balls of sliver on spindles or floor, or sets cans of sliver at feed-end of machine. *Pieces up* sliver with strand left in machine or inserts end of sliver into machine that draws sliver through washing and rinsing solutions, squeeze rollers, and drying cabinets. Turns valves to regulate circulation of washing and rinsing solutions and to adjust temperature of drying cabinets. Intermingles broken ends of fibers to piece up broken sliver. May insert end of sliver in gilling attachment that blends strands and winds sliver into ball [GILL-BOX TENDER (textile)]. May weigh and pack balls of sliver for shipment. May tend machine with oil spray attachment that conditions fiber for further processing.
GOE: 06.04.16 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-014 BEAM-DYER OPERATOR (textile) alternate titles: cylinder dyer

Tends machine that scours and dyes cloth wound on perforated beam: Loads beam of cloth onto machine carriage, using electric hoist. Pushes carriage into

dyeing chamber and bolts door. Places sample spool of material in miniature pressure chamber to obtain swatches for inspection. May tend open-top vat and be designated Beam Dyer, Recessed Vat (textile).
GOE: 06.04.16 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

582.685-018 BLEACH-RANGE OPERATOR (textile)
Tends feed-end of *range* that bleaches, washes, and dries greige cloth preparatory to printing, dyeing, or finishing: Pulls cloth from overhead carrier, positions truck of folded cloth at feed-end of machine, or mounts roll of cloth onto brackets at scray. Sews cloth end to leader in range, using portable sewing machine. Presses button or turns handwheel to set width guide according to width of cloth. Turns valves to control level of chemicals in mangle, washboxes, and peroxide saturator. Turns knobs to adjust pressure on squeeze rollers and to set speed of range as specified for various cloth styles. Observes cloth entering machine to detect bad seams or flaws that might cause tear-outs. Stops range and seams cloth to correct flaws. May thread cloth through range when leader not left in range. May tend range that washes, bleaches, scours, whitens, and dries cloth preparatory to further processing.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 80

582.685-022 BOIL-OFF-MACHINE OPERATOR, CLOTH (textile)
Tends machine that removes dirt, natural gums, and waxes from greige cloth preparatory to further processing: Lifts rolls of cloth to platform at feed-end of machine, using hoist. Inserts rod through center of roll and pushes roll onto machine brackets. Sews end of cloth roll to leader in machine, using portable sewing machine. Turns valves to admit caustic solution and steam to vats. Starts cloth winding from roll on to takeup beam in initial boiloff box and from initial boiloff box onto beams in subsequent boiloff and washboxes. Threads cloth from terminal washbox through squeeze rollers and doffs cloth from *swing-folding attachment*. Records cloth lot number, machine running time, and yardage of cloth processed. May measure distance between colored yarn markers on cloth selvage to determine shrinkage.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-026 CLOTH SHADER (garment; textile)
Examines cloth for uniformity of color, using winding device: Inserts end of cloth roll over top roller of winding device and pins end to guide cloth on bottom roller. Presses button to start rollers, winding cloth around bottom roller. Presses button to stop rollers at intervals and holds swatch against cloth to compare color. Examines roll of cloth for uniformity of color. Marks off-shade portions of cloth, using chalk. May weigh and record cloth weights. May inspect cloth for defects [CLOTH EXAMINER, MACHINE (textile)]. May tend machine that measures length of cloth rolls [CLOTH MEASURER, MACHINE (garment; textile)].
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

582.685-030 CLOTH-WASHER OPERATOR (textile) alternate titles: washing-machine operator
Tends machines that wash or treat cloth with chemicals preparatory to or after processes, such as bleaching, dyeing, printing, and finishing: Pushes truck of cloth into feeding position or mounts roll of cloth on shaft at feed-end of machine. Sews end of cloth to leader in machine, using portable sewing machine. Turns valves to admit water, detergents, caustic, acids, steam, or other chemicals into washing tanks according to specifications. Starts machine and observes flow of cloth through machine to detect tears in cloth. Stops machine, disentangles tear-outs, and knots selvages of torn cloth by hand. Tests solutions in washing tanks by titration or using litmus paper or hydrometer. Adds water, detergents, or chemicals to washing tanks to dilute or strengthen solutions as indicated by tests. May be designated according to chemicals used in washing tanks as Acid-Washer Operator (textile); Naphthol-Soaping-Machine Operator (textile); according to objective of washing as Cloth Neutralizer (textile); or according to type of cloth as Back-Gray-Cloth Washer (textile). May tend machines consisting of series of tanks that process cloth in open-width or *rope form*. Important variables may be indicated by trade names of machines used.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-034 COLORING-MACHINE OPERATOR (hat & cap) alternate titles: dyer
Tends one or more tumbling vats that dye felt hat bodies: Dumps hat bodies into perforated tumbler. Pours premixed dye powder into vat and turns valves to admit water and steam to fill and heat vat. Starts tumbler revolving to saturate hat bodies with dye. Adds prescribed chemicals to solution to increase penetration and permanency of dye. Removes dyed articles after specified time.
GOE: 06.04.16 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 78

582.685-038 CRABBER (textile)
Tends equipment that permanently fixes warp and filling threads in woolen and worsted cloth to prevent uneven shrinkage during subsequent processing: Sews end of cloth to leader, using portable sewing machine, or threads cloth between rollers and through vats. Wraps end of cloth around *takeup roll or guides* and through *swing-folding attachment* and onto handtruck. Turns valves to admit water to vats and to regulate temperature controls, according to specifications. Turns setscrews to adjust pressure of top roller. Starts machine and turns knobs to regulate flow of cloth through vats of boiling water. May doff machine.
GOE: 06.04.16 STRENGTH: M GED: R3 M1 L2 SVP: 2 DLU: 77

582.685-042 DECATING-MACHINE OPERATOR (textile)
Tends machine that circulates steam through cloth wound on perforated cylinder to develop luster, improve hand, remove wrinkles, and shrink cloth: Turns handwheels to set guides according to width of cloth, and pressure roll of winding unit according to tension specified. Laps end of cloth and wrapper (protective covering which removes wrinkles and holds cloth under tension) around cylinder or pins cloth to leader. Starts machine to wind cloth and wrapper into single roll. Sets controls to admit steam into rotating cylinder and force steam through cloth roll, and to draw air back through cloth to cool and dry cloth following instructions for style of cloth. Winds cloth and wrapper onto separate rolls, and doffs rolls of cloth, using hoist, or unwinds cloth through *swing-folding attachment*. May tend machine that automatically steams, removes moisture, unwinds, and folds cloth. May press cloth in electric pressing machine. May tend machine that initially draws cloth over steam trough for priming. May tend decator (pressure tank) that finishes cloth and be designated Full-Decator Operator (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-046 DESIZING-MACHINE OPERATOR, HEAD-END (textile) alternate titles: desizing-pad operator; malter operator
Tends feed-end of *range* that removes size from cloth to increase affinity of cloth for dye: Weighs out desizing agent and mixes agent with water in mixing tank, following formula. Turns valves to transfer solution from mixing tank to desizing tubs and to control steam for heating solution. Positions truck of cloth at feed-end of machine, or mounts cloth roll onto brackets at scray. Sews cloth end to leader in machine, using portable sewing machine. Observes flow of cloth through machine to detect flaws, such as holes and torn selvages. Cuts out flaws, using scissors, and sews cloth ends together. Turns knob to adjust cloth guides and speed of range to accommodate changes in styles of cloth.
GOE: 06.04.16 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-050 DRUM ATTENDANT (leather mfg.; tex. prod., nec) alternate titles: breaker-wheel operator; mill attendant; softener; stuffer, machine; temperer; wet-milling-wheel operator
Tends machine equipped with revolving drum containing solutions that clean, dye, tan, or oil hides or rag stock: Places hides in drum or loads rags onto drum conveyor and locks drum door. Turns valves to fill drum with specified solution and water or steam. Moves controls to rotate drum for specified period. Stops drum, unlocks door, removes rags or hides, and loads hides or rags on cart or rack. May be designated according to process as Blacking-Wheel Tender (leather mfg.); Degreasing-Wheel Operator (leather mfg.); Oiling-Machine Operator (leather mfg.; tex. prod., nec); Tanning-Wheel Filler (leather mfg.); Washing-Machine Operator (leather mfg.). May tend machine, without adding solutions, to soften hides by tumbling and be designated Dry-Mill Worker (leather mfg.).
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

582.685-054 DYE-TANK TENDER (tex. prod., nec) alternate titles: net finisher
Tends treating tank that shrinks, dyes, and resins nets: Mixes dyes and resins in tank according to standard formula or customer specifications, using wood paddle. Turns valves to fill tank with water and heat to specified temperature. Immerses net in tank, using hoist or feed rollers. Observes net to ascertain amount of dye absorbed and measures mesh with ruler to determine degree of shrinkage. Removes net from tank and hangs net in drying room, or feeds net into automatic drier rollers. May dip netting in tar tank. May tie and pack nets in cartons for shipment [PACKAGER, HAND (any industry)].
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-058 DYED-YARN OPERATOR (textile)
Tends machine that coats fiberglass sliver with dye: Places supply package on machine platform and threads sliver through guides, over tension bars and dye roller applicator, through traverse guide, and attaches sliver to takeup package. Pours or turns valve to admit dye solution into trough of dye roller applicator. Pushes lever to lower winding head and start machine. Observes flow of sliver through machine to detect breaks in sliver and ties broken sliver by hand. Cuts sliver, using scissors, and doffs packages of dyed sliver from machine.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-062 EXTRACTOR OPERATOR (tex. prod., nec)
Tends machine that neutralizes carbonizing solution in felt and extracts moisture: Lowers felt pads into tank of boiling water, adds acid neutralizing agent, such as soda ash, and turns valve to admit compressed air that agitates water. Transfers pads to electrically rotated basket by hand, starts basket, and directs stream of cold water on rotating pads to rinse pads. Shuts off water, and stops basket when moisture is expelled.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-066 FEATHER WASHER (tex. prod., nec) alternate titles: tumbler-machine operator
Tends machine that washes feathers used in stuffing household goods, such as pillows and cushions: Fills paddle-agitated or tumbler-type washing machine with feathers, soap, chemicals, and water, and starts machine. Opens valve to drain water and to admit clean water into washer to rinse feathers.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

582.685-070 FELT-WASHING-MACHINE TENDER (tex. prod., nec)
Tends machine that washes and treats felt with chemical preservatives: Wraps felt around machine spindle or presses button to start rollers that pull felt into machine. Turns valves to admit water, steam, detergents, caustics, and

other chemicals into machine at specified intervals according to specifications. Presses button to start machine washing and treating cycles. Unloads machine with aid of another worker or threads felt through rollers for removal of moisture. May tend machine to dye felt and be designated Felt-Dyeing-Machine Tender (tex. prod., nec).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 79

582.685-074 FUMIGATOR AND STERILIZER (furniture) alternate titles: sterilizer operator
Tends retort or vacuum chamber that fumigates or sterilizes used mattresses: Loads mattresses on dollies and pushes them into chamber. Closes and bolts chamber door. Starts vacuum pump to remove air from chamber. Opens valves to control flow of fumigating or sterilizing gases into chamber, observing gauges and scale readings. Pumps gases from chamber and replaces gases with fresh air. Opens chamber door and removes loaded dollies. May tend fumigating device, used inside chamber, that produces fumes from heated chemicals. May tend oven to sterilize mattresses with hot air.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-078 GARMENT STEAMER (knitting) alternate titles: steam hand
Tends machine that removes wrinkles from knitted garments with steam and hot air: Hangs garments on studs of revolving disk of machine. Starts machine that subjects garments to steam spray and hot air as disk revolves. Removes and stacks steamed garments on table.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

582.685-082 GREASER OPERATOR (hat & cap) alternate titles: waxer
Tends machine that applies grease and wax to unfinished felt hat bodies to stiffen and finish felt: Mounts rolls of cloth impregnated with grease and wax on holders of machine and threads cloth under feed rollers, between machine guides, and over applicator pads. Fits hat body over block mounted on arm of machine. Presses lever to start machine that forces body against applicator pads to finish and stiffen body. May be designated according to part of hat body processed as Brim-Greaser Operator (hat & cap); Crown-Greaser Operator (hat & cap).
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

582.685-086 HAIR-BOILER OPERATOR (leather mfg.)
Tends vats that boils animal hair to curl hair. Turns valves to admit water and steam into vats and to drain water from vats after hair is boiled.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-090 JET-DYEING-MACHINE TENDER (textile)
Tends machine that dyes cloth under pressure: Turns valves to admit water, steam, and chemicals into compartments to specified level. Sews ends of cloth together to form endless rope of cloth, using portable sewing machine. Presses button to activate suction device that draws cloth over machine reel into compartments. Presses button to start automatic washing, dyeing, and rinsing cycles, and observes control panel for faulty machine operation. Reports malfunctions to maintenance personnel. Starts reel to pull cloth from machine at end of processing cycles.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-094 KNIT-GOODS WASHER (knitting)
Tends machine that washes and treats knitted tubular cloth with chemicals following finishing: Joins cloth ends together to form continuous lengths, using sewing machine. Loads cloth in machine compartments and pours specified chemicals in machine trough, using dipper. Presses button and flips switches to start machine and observes dials and gauges for variations from standards. Removes cloth from machine onto handtruck following completion of processing cycles.
GOE: 06.04.16 STRENGTH: H GED: R3 M1 L2 SVP: 4 DLU: 77

582.685-098 OPEN-DEVELOPER OPERATOR (textile)
Tends open-developer machine that develops dye in dyed or printed cloth, removes excess color from cloth, and wets cloth before soaping process: Threads end of roll of cloth through machine rolls. Turns steam valves to heat machine tank and opens valves to admit specified chemicals into tank and to start water spray. Turns handwheels to close wringer rolls and starts machine. Straightens wrinkles in cloth as cloth enters machine. Sews end of new roll of cloth to end in machine during processing, using portable sewing machine. Drains tank of machine after cloth is processed. May mix chemicals in storage tank to develop desired color of cloth.
GOE: 06.04.16 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

582.685-102 PACKAGE-DYEING-MACHINE OPERATOR (textile) alternate titles: beam dyer; bleacher; dyeing-machine tender; package dyer
Tends machine that dyes or bleaches yarn wound on perforated beams I, tubes I, or spring coils: Loads package stand or beam of yarn into machine, using power hoist. Closes lid and tightens lid bolts with wrench. Mixes preweighed dye or bleach with water in pail or overflow tank, stirring with paddle. Turns valves to control steam and water flow. Sets controls to pump dye or bleach into machine that automatically processes and rinses yarn at specified temperature and pressure. Adds chemicals during dyeing or bleaching cycle as specified. May load packages of yarn onto perforated spindles of stand and unload machine [DYE-STAND LOADER (textile)]. May weigh dyes according to formula. May tend machine to bleach yarn and be designated Yarn-Bleaching-Machine Operator (textile). May tend machine to dye raw fibers or tops and be designated Raw-Stock-Dyeing-Machine Tender (textile); Top-Dyeing-Machine Tender (textile).
GOE: 06.02.16 STRENGTH: M GED: R3 M1 L2 SVP: 4 DLU: 77

582.685-106 PADDING-MACHINE OPERATOR (textile) alternate titles: dye-padder operator
Tends padding machine that saturates cloth with dye preparatory to further processing: Positions handtruck of cloth at feed-end of machine or mounts roll of cloth on machine, using power hoist, and threads cloth through rollers, or sews supply end to leader in machine, using portable sewing machine. Sets air pressure gauge to control pressure on squeeze roll and temperature gauge to control temperature of dye. Notifies DYE-WEIGHER HELPER (any industry) to release dye to overflow tank. Turns valves to fill padding tank with dye. Starts machine to pass cloth through dye, between squeeze rolls and onto *take-up roll*. Doffs roll of cloth from machine, or may feed cloth to set of *drying cans*. Cuts sample of cloth for inspection by DYER, SUPERVISOR (knitting; tex. prod., nec; textile) 582.131-014. May weigh and mix dye and chemicals.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

582.685-110 PATCH WASHER (textile) alternate titles: patch developer; sample steamer
Tends miniature equipment that develops color in sample swatches of printed cloth: Places sample in miniature steam cabinet and turns valves to spray chemicals and steam into cabinet for specified period of time. Removes sample swatch from cabinet and washes swatch by hand to remove excess color and chemicals. Squeezes excess water from sample, using wringer, and dries sample over heated drum. Returns sample swatch to CLOTH PRINTER (any industry) for comparison with standards.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

582.685-114 ROPE-SILICA-MACHINE OPERATOR (textile)
Tends machine, consisting of series of subdivided tanks, that coats cloth with silicate or other chemical solution to strengthen and fluff cloth: Starts pumps to transfer chemicals and water into mixing tank above machine. Determines specific gravity of solution, using hydrometer, and adds chemicals or water until required specific gravity is attained. Threads end of roll of cloth through guides and squeeze rollers of tanks and over takeup reel at end of tanks. Turns rheostat controls to obtain specified roller speed and tank temperature. Turns valve to admit specified amount of silicate or other chemical solution into tanks. Starts machine and observes cloth as cloth passes through tanks and onto takeup reel.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-118 SATURATOR TENDER (build. mat., nec)
Tends machine that saturates rolls of untreated roofing felt with hot, liquid asphalt: Threads felt through machine rollers and starts machine. Turns wheels and moves levers to regulate machine speed, flow of asphalt, and tension on felt and press rollers. Presses control button to regulate flow of felt to ensure uniform saturation and prevent damage of felt. Tears test pieces from saturated felt to verify specified degree of saturation.
GOE: 06.04.19 STRENGTH: L GED: R3 M1 L2 SVP: 3 DLU: 77

582.685-122 SCRUBBING-MACHINE OPERATOR (tex. prod., nec)
Tends machine that washes and dries twine: Turns valve to admit soap solution to starch pots (tanks) of machine and to admit steam to drying cylinder. Creels machine with bobbins of twine and threads twine through starch pots and drying cylinder. Attaches ends of twine to takeup bobbins. Starts machine and observes movement of twine through machine and onto takeup bobbins to detect malfunctions, such as tangles and breaks. Doffs bobbins of cleaned twine. Scrapes accumulations of dried soap from machine.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-126 SHEEPSKIN PICKLER (meat products) alternate titles: slat pickler
Tends tanks, vats, or drums in which sheepskins are pickled: Turns valves to fill equipment with water. Weighs and dumps specified amounts of lime, salt, detergents, and acid into separate tanks. Throws slats (sheepskins less wool), by hand or using tongs, into lime tank to remove fat and flesh, into detergent tank to remove traces of lime, and into salt and acid tank to pickle slats. Starts agitators in tanks and empties and refills tanks. May perform all processes, using rotating drum, and be designated Pickling-Drum Operator (meat products). May be known according to specific task performed as Lime-Vat Tender (meat products).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-130 SKEIN-YARN DYER (textile) alternate titles: dye-machine tender; kettle tender; pilot; yarn dyer
Tends machines that bleach or dye skeins of yarn: Hangs yarn skeins over perforated rack. Turns valves to fill dye vats with water, and turns knob to set temperature of water according to specifications. Pours chemical softeners and liquid dyes into vats according to formula. Starts machine that rotates skeins periodically and circulates dye through yarn. Dumps dye solution from vats at end of dyeing cycle and circulates rinse water through yarn. Loops several skeins of yarn together to form bundle and removes yarn bundles from perforated racks. Places bundles of yarn into boxes. May load and unload machine, using chain hoist. Important variables may be indicated by trade names or machines used.

GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

582.685-134 SOAKER, HIDES (meat products) alternate titles: hide washer

Tends equipment that washes lamb and sheep pelts: Unloads pelts from trucks, railroad cars, or handcarts. Separates sheep pelts from lamb pelts and segregates pelts with cuts, tears, or blemishes. Turns valve to fill soaking tank with water and dumps specified amount of salt into tank. Throws pelts into tank and starts agitators that wash pelts. Removes pelts from tank by hand or using metal hook. May record number of pelts washed and those found defective.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-138 SPRAY-MACHINE OPERATOR (textile)

Tends machine that sprays finish on cloth to increase thickness and bulk of cloth: Places roll of cloth on holders, by hand or using hoist. Sews end of cloth to leader, using sewing machine mounted on feed-end of spraying machine. Adjusts air pressure control, observes gauges, and turns knob to start flow of finish from tanks through spray apparatus. Adjusts temperature control and observes gauges to regulate heat in gas flame dryer and hot air drying compartments, according to temperature chart. Starts machine and observes cloth passing through spray cabinet to ensure that finish is sprayed evenly on cloth. Stops machine and adjusts air pressure control, nozzles on spray apparatus, or cleans clogged nozzles if finish is not uniform. Measures cloth emerging from drying compartment to detect width shrinkage and adjusts temperature controls as needed. Removes roll of cloth from machine by hand or using hoist, or pushes handtruck from under *swing-folding attachments.* Places empty beam on machine or pushes empty handtruck under swing-folding attachment [BACK TENDER (textile)]. May tend machine equipped with doctor to scrape excess size from material. May pour finish from containers into tanks. May be designated according to finish used as Blow-Machine Tender, Starch Spraying (textile).
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-142 STAINING-MACHINE OPERATOR (tex. prod., nec)

Tends machine that dyes twine: Dips dye from barrel into dye pots of machine. Creels machine with bobbins of twine. Threads ends of twine through guides, dividing racks, squeeze rollers, and dye pots, and ties ends of twine to rope that draws twine through finishing rollers. Starts machine until twine is drawn through finishing rollers and then stops machine and attaches ends to takeup bobbins. Starts machine and observes operation for malfunctions, such as tangled and broken twine. Doffs bobbins of dyed twine. Cleans hardened dye from rollers with scraper, and washes dye pots with hot water.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-146 STEAMER TENDER (textile)

Tends pressurized, steam-heated chambers that age dyed or printed cloth or to set pile fabrics: Pulls cloth over rod of carriage or hooks cloth selvages at intervals on rack hooks to hang cloth in loops on carriages. Pushes cloth carriages or racks into steamer and bolts door, using wrench. Turns valve to admit steam into steaming chamber. Pulls carriages or racks from steamer after specified time.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

582.685-150 STEAMING-CABINET TENDER (garment) alternate titles: finishing tunnel operator

Tends steaming cabinet that circulates steam, heat, and air through garments to remove wrinkles and imparts finished appearance. Moves levers to activate conveyors that carry garments through steaming cabinet and to specified work stations following processing cycles.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

582.685-154 TIN-WHIZ-MACHINE OPERATOR (textile)

Tends machine that weights silk or rayon cloth with tinning solution: Places cloth into bowl of machine and distributes cloth evenly along sides of bowl. Wraps burlap around cloth to prevent silk from separating. Turns valve to admit compressed air into storage tank to agitate tinning solution. Starts pump to transfer specified amount of solution to bowl of machine. Determines specific gravity of solution, using hydrometer, and pours water or concentrated tinning solution from pail into bowl of machine to bring solution to required specific gravity. Starts machine that slowly rotates bowl to saturate cloth with solution. Opens valve to drain solution from bowl of machine into storage tank and turns rheostat control to increase speed of rotating bowl to extract excess solution from cloth. Removes cloth from machine.
GOE: 06.04.16 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

582.685-158 WARP-DYEING-VAT TENDER (textile) alternate titles: continuous-yarn dyeing-machine operator; long-chain-dyeing-machine operator

Tends machine that washes, bleaches, dyes, rinses, and dries warp yarn in *rope form:* Weighs chemicals and dyes, according to formula, and dumps ingredients into mixing tank. Turns valves to admit steam and water into tank, and stirs solution with paddle. Turns valves to release dye mixture into vats. Sets *drying can* thermostat at temperature specified for count of yarn to be dried. Mounts *ball warps* on rack at front of machine, using hoist. Ties yarn to leader to thread machine. Observes yarn passing through units of machine to detect yarn breaks or tangles. Stops machine and untangles snarled yarns or ties broken ends. Compares sample of yarn with standard to determine if dyeing meets specifications, and notifies DYE WEIGHER (any industry) if specifications are not met. Observes level of liquid in vats and adjusts liquid flow to maintain specified level. May be designated according to dye used as Indigo-Vat Tender, Warp (textile); or according to process as Warp-Bleaching-Vat Tender (textile); Warp-Scouring-Vat Tender (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 4 DLU: 77

582.685-162 WASHER (plastic-synth.) alternate titles: bleacher; doffer

Tends equipment that flushes rayon yarn with boiling bleach solution to remove spinning-bath residue and bleach product prior to finishing: Removes full cones, bobbins, *cakes,* or skeins of yarn from spinning (forming) machines and places product on wash rack. Turns valves to start flow of bleach water to flush yarn. Replaces empty bobbins or cones on spindles of spinning machines. May hang skeins in tubs of bleach solution and be designated Dipper (plastic-synth.) or in tubs of chemicals and be designated Desulfurizer, Hand (plastic-synth.). May wrap cakes of yarn in cloth to protect cakes during washing, bleaching, steaming, and drying operations or to partially dry cakes after washing [CAKE WRAPPER (plastic-synth.)]. May perform duties of DRIER OPERATOR (plastic-synth.) III in plants where washing, bleaching, and drying are combined into single operation. May be designated according to article washed and bleached as Bobbin Washer (plastic-synth.); Cake Washer (plastic-synth.); Skein Washer (plastic-synth.); Staple Fiber Washer (plastic-synth.). May tend equipment that processes yarn in single operation and be designated Desulfurizer, Machine (plastic-synth.).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

582.685-166 WOOL-WASHING-MACHINE OPERATOR (textile)

Tends machine that washes endless ropes of woolen piece goods: Threads cloth over reel, between guides, and through feed rollers. Sews ends of cloth together to form endless rope, using sewing machine or by hand. Turns valves to fill tub with water and to control steam for heating solution. Pours liquid detergents into tub, following specifications. Starts machine that revolves piece goods over reel and through solution for specified period of time. Turns valves to drain solution from tub and to fill tub with rinse water. Ravels seams to separate cloth ends after rinsing, laps end of cloth over reel, and starts reel to transfer cloth from machine to handtruck.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

582.685-170 DYE-TUB OPERATOR (knitting) alternate titles: drum-dyeing-machine operator; dyer; tumbler-dyeing-machine operator

Tends machines that dye and finish knitted garments, such as hosiery and sweaters: Turns valves to admit water and steam into machine to specified level. Pours dye, cleaning agents, or finishing chemicals into machine. Turns thermostat and timing device to set temperature and dyeing time, according to formula. Places garments in compartments of machine and starts machine. Periodically examines garments from each dye or finish lot to detect variations from processing standards. Adds dye, reducing agent, or finishing chemicals, according to instructions, if standard is not matched. Drains solution from machine at end of dyeing or finishing cycle. Removes dyed or finished garments to handtruck and labels each lot. May tend extractor [EXTRACTOR OPERATOR (any industry) 581.685-038]. May weigh or measure cleaning agents and chemicals. May be designated according to type of machine used as Paddle-Dyeing-Machine Operator (knitting); Rotary-Drum Dyer (knitting).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 81

582.686-010 DYE-HOUSE WORKER (leather mfg.)

Loads pelts into vats containing solutions to bleach, dye, tan, or clean them. Loads pelts into extractors or drums equipped with paddles to remove excess liquid. Hangs wet pelts over sticks and places them on racks in drying room. Places dried pelts in boxes and trucks pelts to next operation. May stretch skins or replace oils lost in dyeing process.
GOE: 06.04.16 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

582.686-014 DYE-REEL-OPERATOR HELPER (textile) alternate titles: dye-room helper; laborer, wash-and-dye house

Assists DYE-REEL OPERATOR (textile) to bleach or dye cloth, performing any combination of following tasks: Mounts cloth rolls on brackets and feeds end of cloth through *swing-folding attachment* of machine that unwinds cloth into handtruck. Hangs end of cloth over winding reel in dye beck (tub) and sews ends together to make continuous loop, using portable sewing machine. Ravels connecting seams after rinsing and guides cloth over doffing reel into handtruck. Turns valves to drain, rinse, and fill tanks with water. Carries chemicals, such as dyes, bleaches, and scouring agents, from mixing room to dye house and pours chemicals into beck. Conveys cloth between departments, using handtruck. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.16 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

582.686-018 RAW-STOCK-MACHINE LOADER (textile)

Fills raw-stock-dyeing or bleaching machine with cotton, wool, or synthetic fiber, preparatory to dyeing or bleaching, and removes stock from machine: Places rack in machine to support stock during processing. Opens bales and dumps or packs armfuls of loose fiber into machine. Closes machine lid and tightens lugs, using handtools. Removes rack of fiber after processing cycle, using power hoist. May dump premeasured amounts of dyes, bleaches, or other chemicals into tanks. May turn valves to admit steam into tubs.
GOE: 06.04.16 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

582.686-022 SKEIN-YARN-DYER HELPER (textile)

Assists SKEIN-YARN DYER (textile) in bleaching or dyeing skeins of yarn: Hangs yarn skeins over perforated racks of portable cabinet. Loads yarn into

machine, using chain hoist. Removes dyed yarn from machine. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

582.686-026 SLASHER-TENDER HELPER (textile) alternate titles: sizer helper
Assists SLASHER TENDER (textile) in coating warp threads with size and winding warp onto *loom beams:* Transfers warp or loom beams to or from machine, using handtruck. Positions beams on creel, using hoist. Assists SLASHER TENDER (textile) to pass warp threads through rollers, size pot, and drying rollers and to insert lease rods. Loosens and removes clamps from end of loom beam, using wrench. Lifts loom beam from slasher onto handtruck, using hoist. May mix and cook size in vats according to formula. May turn valves to control flow of size from vat to size pot on slasher machine. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.16 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

582.686-030 TOP-DYEING-MACHINE LOADER (tex. prod., nec; textile) alternate titles: dye-machine-tender helper; kettle-tender helper
Loads worsted or synthetic tops into kettles for dyeing: Pulls portion of inside fiber to outside so tops will pass over spindles (perforated pipes). Wraps tops in cloth or in bags to hold tops intact during dyeing. Pushes wrapped tops over spindles in kettle. Removes tops after dyeing. May convey tops to and from dye room, using handtruck. May weigh and tag tops before dyeing. May drain solution and rinse excess dye from kettles.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

582.686-034 TUBE HANDLER (textile)
Positions and removes hollow rods used to support folds of printed cloth while cloth moves through steaming chamber: Removes rods from conveyor in feeder rack that automatically drops rods into position to support cloth. Removes and places rods emerging from discharge end of steaming chamber onto conveyor belt to be returned to feeder rack.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

582.686-038 WARP COILER (textile)
Off bears ropes of yarn from discharge end of yarn mercerizing, dyeing, or drying machine, or from machine that divides *ball warps* into smaller warps: Observes ropes of yarn as ropes coil onto cloth or fold into baskets or cartons to detect breaks or tangles in yarn. Ties broken yarn ends to prevent tangling. Signals machine tender to stop machine if yarn tangles. Ties corners of cloth over coiled yarn and replaces filled cloth or basket. Assists machine tenders in threading and cleaning machine.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

582.687-010 BAGGER (knitting)
Counts, folds, and places specified number of undyed hose of same size and style in bag, and ties bag to prepare hose for dyeing. Attaches identifying label to bag.
GOE: 06.04.38 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 81

582.687-014 DYER (button & notion)
Dumps feathers into dye vats and stirs feathers, using stick, to color feathers used as trimmings for ladies' garments. Removes and places feathers in steam-heated drums to dry, using wire scoops. May load feathers in extractor.
GOE: 06.04.19 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

582.687-018 FELT-HAT STEAMER (hat & cap)
Steams felt hats to remove shine and nap from hats: Rolls brim down and places inverted hat over steam outlet for removal of shine and nap from felt. Places finished hats on trolley.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

582.687-022 SHADE MATCHER (textile) alternate titles: general matcher; stack matcher; strip shader; tear-down matcher
Examines rolls or folded cuts of dyed or printed cloth for variations in color shade, and sorts cloth according to shade, preparatory to shipment. Cuts off-shade portions from cloth with scissors. Stacks identical cuts of cloth together on handtruck. May compare swatches from opposite ends of cloth piece to detect variation of color within piece.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

582.687-026 SIZER (textile) alternate titles: starcher
Dumps prepared sizing solution into size box. Immerses yarn skeins in solution for specified period to strengthen threads. Lifts yarn from box onto extractor.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

582.687-030 TREATER (any industry) alternate titles: applicator; applier
Coats curtains, drapes, and hangings with chemical solutions to render articles fireproof or flameproof: Immerses article in vat containing chemical solution or sprays solution on article. May mix chemicals. May spray hangings at business establishments. Keeps record of work performed and chemicals used.
GOE: 06.04.33 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

583 IRONING, PRESSING, GLAZING, STAKING, CALENDERING, AND EMBOSSING OCCUPATIONS

This group includes occupations concerned with imparting or restoring shape, smoothness, or finish to materials by application of pressure or tension usually accompanied by steam; imparting various effects to materials by running them under the pressure of a series of smooth or engraved rollers or plates; and stretching and softening leather in a staking machine to prevent cohesion of the fibers while drying.

583.132-010 SUPERVISOR, PRESSING DEPARTMENT (garment)
Supervises and coordinates activities of workers engaged in pressing, folding, and packing garments: Trains workers in setting up and operating machines and equipment. Examines articles for finishing defects, such as soils and faulty seaming. Performs other duties as described under SUPERVISOR (any industry) Master Title. May operate pressing machine [PRESSER, MACHINE (any industry)]. May press garments, using hand iron [PRESSER, HAND (any industry)].
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

583.137-010 SUPERVISOR, PLEATING (tex. prod., nec)
Supervises and coordinates activities of workers engaged in pleating fabric material or unfinished skirts: Assigns pleat patterns and materials to workers. Examines pleated skirts to ensure conformance to standards. Records number of skirts processed by each worker for production and billing records. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 77

583.585-010 CALENDER-MACHINE OPERATOR (nonmet. min.) alternate titles: cloth calender; tape calender; button-breaker operator
Tends takeup machine that presses asbestos cloth, tape, rope, or brake lining to uniform thickness and even finish: Places roll of asbestos material on brackets of machine and threads material through feed rollers, calender rolls, and around *takeup roll.* Turns handwheel or air valve to regulate pressure on calender rolls according to material being pressed. Adjusts thermostat to set specified temperature for rollers. Starts machine and guides material into feed rollers. Measures thickness and width of material, using micrometer and tape measure, and adjusts pressure on rollers so thickness and width of material will conform to specifications. Observes recording control chart and adjusts coolant valves to control temperature of rollers. Removes rolls of material from takeup roll. Records width, yardage, and type of material pressed on work ticket and attaches ticket to roll of material. May examine asbestos material for defects and mend defects, using darning needle. May change rollers, using hoist and handtools. May tend machine that presses wire mesh and asbestos to uniform thickness.
GOE: 06.04.05 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

583.682-010 COATING-AND-EMBOSSING-UNIT OPERATOR (tex. prod., nec; textile)
Operates machine to size, coat, and emboss fabrics, such as felt or cloth: Places roll of material onto feed holder of machine. Threads end through tandem arrangement of calender, sizing, coating, embossing, and drier units. Attaches end to rewind spindle. Turns handwheels to admit steam that moistens material and to admit steam into calender rolls to heat rolls. Fills troughs with specified sizing and coating solutions and turns screws to adjust doctors. Turns calibrated dial knobs to adjust airflow and temperature in drying ovens. Positions and locks engraved shells on embossing rolls. Turns screws or inserts shims to adjust pressure of roller on material. Turns knob to synchronize speed of machines and conveyors. Positions feed guides, tightens guides with wrench, and starts machine. Examines sample run to determine conformity to specifications. May place additional rolls of material into feed holders to produce laminated fabrics.
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 77

583.684-010 PLEATER, HAND (tex. prod., nec)
Forms pleats in wool, cotton, synthetic, or other cloth fabrics, using pleat patterns: Places opened pleat pattern on table, using iron weights to hold pleats open. Lays fabric on pattern and folds creases in pattern to form pleats. Rolls pattern with fabric inside into cylinder preparatory to steaming process.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

583.684-014 WAIST PLEATER (tex. prod., nec)
Forms and tapes unpressed pleats around waist of unfinished skirts: Lays material on pleat pattern and folds in pleats. Presses pattern with steam iron to retain pleats. Removes material and tapes waistline with masking tape to keep pleats in place.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L2 SVP: 4 DLU: 77

583.685-010 BREAKER-MACHINE TENDER (textile)
Tends machine that removes excess starch or stiffness from dyed or printed cloth: Slides cloth roll onto machine brackets. Threads cloth over and under alternate rollers that have surface of wavy ridges or rollers that are covered with metal buttons. Starts machine and observes operation to detect binding of cloth or machine malfunction. Pushes lever to reverse machine, running cloth through several times until texture meets specifications.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

583.685-014 BRIM CURLER (hat & cap)
Tends machine that presses and curls brims of fiber helmets: Inserts crown of helmet in lower die on bed of machine. Pushes button or lever that raises and presses die and helmet against upper die to curl brim. Pulls or presses button lever to lower die and removes helmet. May turn switches and valve controls to start cooling unit in lower die and activate heating element in upper die.

GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-018 BRIM PRESSER I (hat & cap) alternate titles: brim buster; brimmer; brim plater

Tends machine that presses hat brims to smooth and flatten brims: Selects specified flange (collar) and positions flange over hole in heated machine bed. Inserts hat crown in hole with brim resting on flange. Moves lever to lower machine press against hat brim or raise machine bed, containing hat, against stationary press to curl, smooth, or flatten brim. Removes hat from machine and places on rack. May tend machine equipped with rotary block or inflation device to press hat brims. When tending battery of hydraulic presses to shape straw hat brims, is known as Set-Off-Press Operator (hat & cap).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

583.685-022 BRIM-AND-CROWN PRESSER (hat & cap) alternate titles: brim buster; brim setter; crown ironer; ironer

Tends one or more machines that press unfinished hat bodies to smooth and shape hats: Positions inverted hat body in specified size heated form, mounted in bed of press. Pulls lever to lower ram and automatically inflate hat body to shape body and brim against form. Removes and inspects hat for wrinkles and specific shape, and stacks hat on rack. May insert specified shaped block in hat body before lowering ram if press is not equipped with inflation device.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

583.685-026 CALENDER OPERATOR (tex. prod., nec; textile) alternate titles: calender tender; roll-calender tender

Tends machine that imparts luster and finish to cloth or felt by pressure of cold or steam-heated rolls: Places roll of cloth or felt on brackets of machine, using hoist, and threads end of cloth between rollers and onto takeup beam. Pulls lever to lower rollers and apply pressure to cloth. Turns screws to position brush that cleans nap of felt goods. Turns dial to set temperature gauge according to specification for style of cloth. Turns handwheel to adjust entering guides according to width of cloth and to regulate tension of cloth. May raise rollers to allow seams or clips to pass. May sew end of new cloth to leader cloth. May tend calender fed directly from another machine or from handtruck.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

583.685-030 EMBOSSER (any industry) alternate titles: embossing-calender operator; embossing-machine operator; roller embosser

Tends machine that imparts raised design or finish on cloth, coated fabrics, or plastic sheeting, by means of heat and pressure from engraved steel rollers: Adjusts automatic device that regulates heat, or turns valve to admit steam to rollers. Slides bar through center of material roll and lifts it onto machine feed brackets. Threads material between rollers and laps end onto takeup tube. Starts machine and moves controls to adjust speed, pressure of rollers, and tension of material. Observes material as it passes through machine to prevent seams, rolled selvages, or trash from damaging rollers. May guide material by hand. May verify temperature of roller, using pyrometer. May sew cuts of cloth together, using portable sewing machine. May be designated according to material embossed as Silk-Crepe-Machine Operator (textile). May tend machine that imparts artificial graining, size, trademark, or other designs to sweatbands and be designated Sweatband-Decorating-Machine Operator (hat & cap). Important variables may be indicated by trade names of machine used.
GOE: 06.04.02 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 78

583.685-034 EMBOSSING-MACHINE OPERATOR (tex. prod., nec)

Tends embossing machine that imprints grain or pattern on plastic sheeting for use in manufacture of wall covering and padded automotive components, such as dashboards and door panels: Positions rolls of sheeting in *letoff rack*, using hoist. Threads sheeting through guide rolls and onto core on *windup rack*. Adjusts pressure of embossing roll to imprint design to specified depth without damaging sheeting. Starts machine and observes operation of machine to prevent damage to goods by wrinkling or tearing. May laminate and emboss sheets in single operation.
GOE: 06.04.02 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

583.685-038 EMBOSSING-MACHINE-OPERATOR HELPER (plastic-synth.)

Tends embossing machine that imprints designs on plastic sheeting: Turns valves and pulls levers, as directed, to regulate heat and tension of machine. Positions rolls of material in *letoff rack* and *windup racks*, using hoist. Threads material between machine rollers. Moves rolls of material to storage, using handtruck. Feeds machine that grinds scrap.
GOE: 06.04.02 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

583.685-042 FOLDING-MACHINE OPERATOR (garment) alternate titles: creaser; creasing-machine operator; crimper; folder

Tends machine that folds and presses garment parts, such as collar bands, pockets, and pocket flaps, to shape and prepare parts for sewing, using either of following methods: (1) Positions part in heated die on bed of machine. Depresses pedal to start machine that automatically lowers upper die onto garment part and into lower die, releases steam from lower die, and moves horizontally sliding plates over edges of part to fold and press part. (2) Inserts edges of garment part through folding device and guides folded edges between heated pressing rollers. May be designated according to part creased as Collar-Band Creaser (garment); Cuff Creaser (garment); Pocket Creaser (garment; knitting); Pocket-Flap-Creasing-Machine Operator (garment); Shirt Creaser (garment).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-046 FUSING-MACHINE TENDER (garment; knitting)

Tends machine that fuses decorative emblems, monograms, labels, collar stays, and backing material to hose or garment parts: Places applique on hose or garment part or positions backing on garment part and presses button or lever to activate machine that heats and seals articles together. May be designated according to article fused as Collar-Stay Fuser Tender (garment); Emblem-Fuser Tender (garment; knitting); Label-Fuser Tender (garment).
GOE: 06.04.05 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

583.685-050 HAT-LINING BLOCKER (hat & cap)

Tends equipment that presses and smooths hat linings preparatory to installation in hats: Turns hat lining inside-out and fits lining over heated hat block. Smooths and straightens lining and seam, using hands and fingers. Pulls lever to lower pressing form onto lining, or lowers sandfilled cloth bag onto lining to press lining using hoist. Depresses pedal to force steam through perforations in hat block to moisten lining and set press. Raises bag or releases press and removes lining from block. Stacks linings on table according to size. May place linings on hat form for cooling following removal from block.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-054 HYDRAULIC-PRESS OPERATOR (knitting)

Tends hydraulic-pressing machine that smooths wrinkles from folded knitted garments: Opens valves to admit steam to pressing plate. Lays folded garments in tray. Slides tray under plate and onto top of piston of machine. Shifts lever to raise piston and force tray against steam-heated plate to press garments. Pulls tray from under steam plate and removes garments after piston automatically lowers.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-058 HYDRAULIC-PRESS OPERATOR (tex. prod., nec)

Tends hydraulic press that compresses hard felt pads to uniform thickness: Places flat steel spacing bars of desired thickness on edges of anvil to limit stroke of ram. Places felt pads between spacing bars and starts ram to compress felt. Opens valve to admit steam to ram for heating felt to aid in compression. Removes felt pads after ram returns to starting position and places pads on floor to cool. Places cooled pads in boxes. May verify thickness of pads, using gauge.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

583.685-062 JACQUARD-TWINE-POLISHER OPERATOR (tex. prod., nec)

Tends machine that polishes hand-starched skeins of jacquard twine: Hangs skeins on pole and stretches skein to specified length. Removes laces that bind skeins and dips skeins into starch barrel. Attaches ends of starched skeins to hook that is rotated by handcrank and turns crank to wring excess starch from skeins. Spreads skeins on rollers of polishing machine and starts machine. Observes operation of machine and spreads strands to prevent bunching.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

583.685-066 LEATHER ETCHER (garment)

Tends machine that presses and scorches designs into leather garment parts: Starts roll-turning motor and roll heater. Moves handle of variable electric resistor to adjust heating of upper roll to specified temperature. Turns wing nuts to adjust pressure between rolls and feeds garment parts between rolls.
GOE: 06.04.16 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 77

583.685-070 MANGLER (knitting) alternate titles: ironer; mangle operator, garments; pressing machine operator

Tends machine, consisting of pressing roll and ironing shoe, that shapes and smooths knitted garments: Presses control lever to revolve roll and to engage ironing shoe with revolving roll while machine is heating. Adjusts rheostat to heat ironing shoe and to maintain specified temperature. Disengages heating ironing shoe from roll, stops roll, and spreads garment on roll. Starts roll and reengages ironing shoe to press garment. Removes pressed garment from machine. May be designated according to garment or garment part pressed as Cuff Presser (knitting).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

583.685-074 NARROW-FABRIC CALENDERER (narrow fabrics)

Tends calender machine that imparts luster and finish simultaneously to several strands (10-50) of narrow fabrics, such as tape and ribbon: Threads ends around rollers of machine and starts strands into cans, or ties ends to ends in machine. Starts machine and observes strands of fabric entering machine to detect tangled or twisted fabric. Stops machine and straightens fabric. May tend machine equipped with spray (mist) attachment that dampens fabric before fabric enters rollers.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-078 PILLOWCASE TURNER (tex. prod., nec)

Tends machine that turns pillowcases right-side-out and stretches material to remove wrinkles: Turns dials to adjust turner arms according to width of pillowcases and to adjust speed and throw of discharge mechanism. Positions pillowcase on arms and depresses pedal to activate mechanism that inverts pillowcase and discharges article onto rack. May turn pillowcases by hand or using turning stand.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

583.685-082 PLEATING-MACHINE OPERATOR (any industry)

Tends one or more machines that fold and press pleats into materials, such as cloth, paper, plastic, or parchment: Turns thumbscrews or levers to adjust

pleating knife according to width specified for pleats and for distance specified between pleats, and to adjust temperature of pressing rollers. Places roll of material on rod at entry end of machine and draws end of fabric through guides, pleating knife, and between heated pressing rollers. Laps end of fabric around *takeup roll* or guides end into box. Starts machine and observes pleating for conformance to specifications. May thread material between layers of paper to prevent heated rollers from scorching material. May tend machine that attaches waxed thread to edges of material to hold pleats in fabric.
GOE: 06.04.05 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

583.685-086 PRESS OPERATOR (textile)
Tends machine that steams and presses wrinkles from woolen cloth: Starts press and manually guides cloth into machine and under weighted cylinder which steams material and presses out wrinkles. Turns handwheel to adjust cylinder pressure according to type of cloth processed. Sews end of new material to end of material in press, using sewing machine. Cleans and oils pressing machine.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

583.685-090 PRESSER, BUFFING WHEEL (tex. prod., nec)
Tends machine that presses cloth buffing wheels after forming to prepare buffing wheels for sewing: Presses lever to start movement of machine bed toward and away from heated press. Removes and replaces buffing wheels on bed of machine as bed moves forward. Moves lever attached to ratchet wheel to adjust space between bed and press to accommodate wheels of different sizes. May tend press to insert cardboard or wood cores in buffing wheels.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-094 ROLLER-MACHINE OPERATOR (leather mfg.) alternate titles: leather polisher
Tends roller machine that smooths or glazes surface or accentuates natural grain of leather: Positions leather on bed of machine and depresses pedal to lower roller onto leather. Starts machine to move roller over leather. Shifts position of leather under roller to impart specified finish to entire surface. Pulls finished leather from machine table and stacks leather on cart. May be designated according to section of hide rolled as Back Roller (leather mfg.); Belly Roller (leather mfg.); Crop Roller (leather mfg.); according to condition of leather rolled as Dry Roller (leather mfg.); Retanned-Leather Roller (leather mfg.); Wet Roller (leather mfg.); or according to type of machine tended as Glazing-Machine Operator (leather mfg.), Graining-Machine Operator (leather mfg.).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

583.685-098 SEAM PRESSER (hat & cap)
Tends machine that presses seams of caps, hats, or millinery: Turns dial to regulate temperature of iron in machine head, according to temperature specifications for type of material to be pressed. Positions seam over ironing form on bed of machine and under feed wheel guide. Depresses pedal to lower heated iron onto seam and feeds material under iron to smooth and flatten seam. May be designated according to section of seam pressed as Half-Section Ironer (hat & cap); Quarter-Section Ironer (hat & cap).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

583.685-102 SHAPER AND PRESSER (garment) alternate titles: collar pointer; collar-top turner; cuff-turner-machine operator
Tends machine that shapes and presses garment parts, such as collars and cuffs preparatory to joining parts to garments: Pulls collar or cuff onto shaped metal template of machine. Depresses pedals to open heated plates of machine and move template and garment part between heated plates. Releases pedal to close heated plates against part to shape and press part. Turns thermostatic control to regulate temperature of plates according to type of fabric pressed. May invert clothing parts prior to shaping and pressing [TURNER (any industry)].
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-106 STEAM-PRESS TENDER (textile)
Tends machine that passes cloth (usually woolen) between rollers and steam-jacketed enclosure to press and remove wrinkles from cloth: Sews end of cloth to leader in machine, using portable sewing machine. Turns wheel to adjust guides according to width of cloth. Turns thumbscrew to regulate pressure of steam jacket for type of cloth and finish specified. Turns valve to admit steam if cloth is to be dampened before pressing. Observes cloth feeding into machine to detect and remove foreign matter. Places empty truck under *swing-folding attachment* and doffs full truck or removes full rolls from machine brackets, using chain hoist. May measure width of cloth after pressing and turn wheel to adjust spread roller that controls width of finished cloth.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

583.685-110 STRAW HAT PRESSER, MACHINE (hat & cap)
Tends machine that presses strawhats to shape and smooths brims and crowns: Selects pressing dies according to specifications, and secures dies in holders of machine bed and ram, using screwdriver. Positions hat over heated lower die in machine bed. Moves lever to lower ram containing heated upper die that shapes and smooths hat. Removes hat and examines for flaws, such as wrinkles and shaping irregularities. May tend hydraulic pressing machine [HYDRAULIC BLOCKER (hat & cap) 580.685-038]. May be designated according to pressing stage as Presser, First (hat & cap); Presser, Second (hat & cap). May moisten hat with steam preparatory to pressing.
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

583.685-114 STRAW-HAT-PLUNGER OPERATOR (hat & cap) alternate titles: straw-hat presser
Tends plunger press that presses and shapes straw hats to size: Turns valve to admit steam to hollow die. Places hat inside die, crown down. Pulls lever to force ram down on hat. Releases press after specified time and removes pressed hat. May tend two presses simultaneously.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

583.685-118 STRIP PRESSER (boot & shoe)
Tends machine that presses and removes wrinkles from leather strips used for shoe findings: Sorts strips according to width and color. Presses button that starts machine and inserts strip between pressing rollers. Guides strips from rollers to distribute strips evenly in container under rollers.
GOE: 06.04.05 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

583.685-122 TRIMMING-MACHINE OPERATOR (garment; knitting) alternate titles: winder
Tends machine that presses trimming material and winds material onto spools: Inserts end of trimming between heated rollers and fastens end to take-up spool with tape, pins, or glue. Starts and regulates rotation of machine rollers that press and wind trimming material. Guides and smooths material as material is drawn into rotating rollers to prevent tangling. Turns valve to admit steam into rollers to steam press cloth as required.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

583.685-126 YARN-POLISHING-MACHINE OPERATOR (textile) alternate titles: glazer; glazing-machine operator
Tends machine that applies finishing solution to yarn, thread, or twine to add strength and luster to item: Places full spools on spindles of creel, draws thread through finishing compound and drying and brushing units, and laps end onto takeup spools, or ties thread to preceding end. Pours finishing compound into tank to maintain specified level. Ties broken threads. Doffs finished spools and replaces them with empty spools.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

583.686-010 BEAD-MACHINE OPERATOR (hat & cap) alternate titles: burring-machine operator; sweatband drummer
Feeds sweatband leather between rollers of machine that embosses decorative line or bead preparatory to sewing into hats: Starts machine and feeds strips of leather against guide and between rollers that impart decorative beading or that emboss leather to simulate turned edge in sweatband.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

583.686-014 FUSING-MACHINE FEEDER (garment)
Feeds or off bears machine that fuses backing material to garment parts: Aligns material and garment part on conveyor for feeding into machine that heat seals materials. Removes finished articles from conveyor belt.
GOE: 06.04.05 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

583.686-018 GLOVE TURNER AND FORMER, AUTOMATIC (glove & mit.) alternate titles: turner and former, automatic
Feeds or off bears machine that turns, shapes, and presses gloves: Dumps box of gloves into bin over machine. Pulls each glove over *turner tubes* to feed machine. Removes turned, shaped (formed), and pressed glove from conveyor. Examines gloves for defective pressing or punched-out finger tips and pairs gloves without defects.
GOE: 06.04.05 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

583.686-022 MANGLE-PRESS CATCHER (textile) alternate titles: mangle doffer
Off bears pressed knitted garments, pillowcases, or other textile products, from rear of mangle press, and places articles on handtrucks.
GOE: 06.04.05 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

583.686-026 OUTSOLE FLEXER (boot & shoe)
Feeds leather outsoles through machine equipped with series of powered rollers that bend outsoles to make leather more flexible. Catches outsoles coming from machine and stacks outsoles on handtruck for further processing. May feed knee blocks through machine.
GOE: 06.04.05 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

583.686-030 PRESS FEEDER (knitting; textile) alternate titles: roller-presser operator
Positions cloth or knitted garments on belt conveyor of machine that presses garments through heated rollers to smooth out wrinkles, dry, or preshrink articles. May inspect one side of garment to detect holes and lay defective garment on table for MENDER, KNIT GOODS (garment; knitting).
GOE: 06.04.16 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

583.687-010 PRESS HAND (knitting) alternate titles: boarder
Stacks knitted garments between alternate layers of pressing boards to prepare articles for pressing in hydraulic press. Removes garments from between boards after pressing.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

584 MERCERIZING, COATING, AND LAMINATING OCCUPATIONS

This group includes occupations concerned with treating material with concentrated caustic soda lye to cause swelling and increase luster; forming or pressing material into thin layers and covering materials and products with a layer or layers of the same or another material for such purposes as building them up, decorating, or preserving them.

584.382-010 COATING-MACHINE OPERATOR I (tex. prod., nec) alternate titles: saturator

Operates machine to coat cloth, paper, or other sheet material used in production of artificial leather and other coated fabrics: Installs uncoated sheeting roll on machine brackets, using hoist, or threads sheeting from calender machine through coating machine rollers onto *takeup roll.* Operates sewing machine to join uncoated roll to end of processed roll, and cuts material at seam after seam passes through coating and drying units. Adjusts doctor blade or roller clearance to produce coating of specified thickness. Starts machine when dryer temperature reaches specified setting. Turns valves to control flow of coating solution onto sheeting, or applies solution to fabric surface, using dipper and bucket. Observes process to prevent slippage of sheeting from width guides and turns guides and moves machine controls to correct such defects as streaks, wrinkles, and turned edges in material being processed. Applies gummed tape to repair holes or tears in sheeting. May be designated according to type of coating applied as Dull-Coat-Mill Operator (tex. prod., nec); Finish-Coat-Mill Operator (tex. prod., nec); First Coat Operator (tex. prod., nec). May remove coated rolls from machine, using hoist.

GOE: 06.02.21 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

584.382-014 QUILTING-MACHINE OPERATOR (tex. prod., nec)

Sets up and operates machine to heat-seal vinyl film to cotton and synthetic filler in specified patterns to produce quilted fabric: Reads work order to determine specifications, such as type of vinyl film and batting (filler), die pattern, and total yardage to be fabricated. Bolts die to underside of machine ram with assistance of other worker, tapes insulating paper to bumper plate of machine, and mounts bumper plate onto machine bed under die. Loads vinyl film and batting onto roller bar with assistance of other worker, using hoist, and lowers roller bar onto machine feed-off winder. Adjusts ram stroke and pull-away arm to specified positions, using wrench. Adjusts thermo-seal unit controls for radio-wave frequency, sealing time, and electrical current, applying knowledge of product specifications and machine operations. Buffs die surfaces to remove burrs, using emery cloth. Adjusts slitter knives to specified width of finished material, using rule and hex key. Pushes buttons to activate machine for trial run, inspects quilted fabric for defects such as die cutting through material, and adjusts control settings to correct defects. Restarts machine and observes feeding, positioning, heat sealing, and winding operations to detect malfunctions. Continuously observes light signal that indicates drainage of residual current from die and machine bed after die-sealing operation. Pushes buttons to stop machine when signal is not emitted and notifies designated personnel. Attaches red tape to fabric to mark defects, such as burns, smudges, and printing errors. Positions and tapes end of quilted fabric emerging from machine onto takeup roller, pushes knob to set automatic yardage counter to zero, and pulls lever to stop winder when specified yardage has been reached. Cuts off material, using knife, tapes material end to roll, and wraps and labels roll, following prescribed procedures. Carries finished rolls to specified storage area.

GOE: 06.02.09 STRENGTH: H GED: R3 M2 L2 SVP: 5 DLU: 86

584.562-010 COATING-MACHINE OPERATOR (carpet & rug; tex. prod., nec) alternate titles: roll-coating-machine operator

Operates machine to coat rolls of woven fiber rugs or felt padding with vinyl or other coatings to prolong life of fiber and retard soiling: Dumps specified amounts of coating ingredients into vat and starts mixer. Turns valve to transfer coating to machine reservoir. Observes thermometers and adjusts electrical controls to maintain specified temperatures in bath and drying compartments. Threads fiber rug material through machine or sews end of new roll to end of preceding roll in machine. Pushes switch to start machine that moves material through coating bath and drying compartments onto rewind roller. Cleans machine and equipment, using water, solvents, brushes, scrapers, and chisel. Prepares production report on rugs coated. May operate machine equipped with automatic sprays to coat rugs or padding.

GOE: 06.02.21 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

584.665-010 COATER HELPER (textile)

Assists COATER (textile) in applying rubber or pyroxylin coating to fabric, such as carpeting and upholstery material, and to dry coating: Starts pump to admit solution to trough. Observes cloth to detect faulty coating and covers missed spots, using brush. Turns dials to control temperature of *curing oven* and movement of cloth through *range*, and to adjust *tenter frame* guides. Works as member of team to operate and clean range. Assists in removing full rolls from range. May tend intermediate range units that apply backing to carpeting and be designated Laminating-Machine Operator Helper (textile).

GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

584.665-014 GLUE-SPREADING-MACHINE OPERATOR (leather prod.)

Tends glue spreading machine that applies glue to unfinished side of material, such as leather, imitation leather, fabric, and vinyl: Receives light signals indicating size of material to be glued from CASE FINISHER (leather prod.). Fills reservoir with glue, turns adjustment wheel to regulate flow of glue from rollers, and starts machine. Selects designated size of material and guides material into feed roller which glues and drops material onto conveyor for transfer to coverers. May place wax paper between parts to prevent sticking.

GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

584.665-018 SIZING-MACHINE TENDER (textile)

Tends machine that coats strands of yarn with size to stiffen and strengthen yarn for further processing: Positions yarn bobbins and takeup cylinders on spindles of machine. Threads yarn over fingers of *tension guides*, across size-covered rollers, and around cylinders. Determines tension of yarn strands, using tensiometer. Pulls or releases yarn between tension guide and takeup cylinder to increase or decrease tension. Turns valve to admit size into retaining trough of machine. Observes machine to detect deviation of flow or supply of size from standard and notifies KNITTING-MACHINE FIXER, HEAD (knitting) of malfunction. Observes machine to detect yarn breakage and ties knot or rewraps yarn end around sizing cylinder to repair breaks. Doffs and labels cylinders of sized yarn. May mix size, following formula.

GOE: 06.04.16 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

584.682-010 COATER (textile)

Operates *range* consisting of units, such as troughs, pickup roller, *curing oven, and tenter frame*, to apply coatings, such as rubber, pyroxylin, or foam to fabrics, such as carpeting or upholstery material, and to dry coating: Sews end of cloth to leader in machine, using portable sewing machine, or threads end of fabric through rolls of machine. Starts pump to admit solution into trough. Observes operation to detect skewed cloth and pushes buttons to control speed of rollers that hold back or advance selvages to straighten cloth. Measures cloth emerging from tenter frame to determine if cloth has been stretched and dried to specified width. Turns handwheel to adjust distance between tenter chains. Turns switches to regulate speed of machine and temperature of drying cabinet, and turns setscrew to set doctor blade for various cloth styles. Tests viscosity of coating solution with viscosimeter and adds solvent or coating ingredients to bring solution to specifed viscosity. Doffs trucks of dry cloth at *swing-folding attachment.* May operate machine equipped with condenser to recover evaporated solvent. May operate range to apply backing to carpeting. May tend beamer that winds packages of fabric onto beams of continuous length to facilitate further processing.

GOE: 06.02.21 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 80

584.682-014 LAMINATING-MACHINE OPERATOR (knitting; textile) alternate titles: combining-machine operator

Operates *range* to laminate materials, such as cloth, carpeting, felt, and foam rubber: Mounts roll of felt or foam rubber on machine brackets. Pushes truck of cloth into feeding position. Sews cloth and felt or foam rubber to leader using portable sewing machine, or threads layers of materials through range unit guides and rollers. Turns dials and handwheels to adjust blade that spreads predetermined quantity of adhesive onto cloth, regulate heat lamps and speed of laminating rollers, or to adjust *tenter frame* according to width of materials. Turns valve to admit steam into *drying cans* or steam pipes and starts range. Aligns cloth entering machine and observes fabrics to detect wrinkles and holes. Patches holes with masking tape and smooths wrinkles by hand. May apply adhesive to material with trowel or dipper. May work as member of team to guide cloth into range.

GOE: 06.02.09 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

584.684-010 LATEXER (carpet & rug)

Applies latex to backs of rugs to secure yarn tufts in backing material, using spray gun, brush, or trowel: Spreads rug, bottom-side-up, over specified frame and hooks edges onto frame spikes. Covers rug with backing material and attaches backing edges to spikes. Sprays or pours and spreads latex onto backing, using spray gun or bucket and trowel. Turns knob and moves levers to set temperature and speed of track-mounted drying machine that traverses frame and dries rug. Removes rug from frame onto table, in roll form, for further processing. May tend machine equipped with rollers, that applies latex to back of carpeting.

GOE: 06.04.33 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

584.685-010 CALENDER OPERATOR, ARTIFICIAL LEATHER (tex. prod., nec)

Tends calender machine that compresses cloth and coated cloth sheeting to produce artificial leather fabric: Changes cloth rolls on *letoff rack* and *windup racks*, and threads sheeting through calender rollers with assistance of LABORER, GENERAL (tex. prod., nec). Scrapes surfaces of fiber rollers to remove foreign material. Sews ends of cloth rolls together to form continuous sheet, using sewing machine. Inspects sheeting being calendered to detect turned edges, material defects, or uneven coating. Applies gummed tape to holes, faulty seams, or frayed edges, and smooths wrinkles. Applies soap solution to roller to remove surface depressions, and starts calender to dry rollers by friction. May be designated according to processing stage as Raw-Calender Operator (tex. prod., nec); Second-Calender Operator (tex. prod., nec); Third-Calender Operator (tex. prod., nec).

GOE: 06.04.16 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 77

584.685-014 CLOTH-MERCERIZER OPERATOR (textile) alternate titles: lusterer; mercerizer-machine operator; mercerizer; mercerizing-range controller

Tends machine that adds silk-like luster to cotton cloth and increases strength and affinity of cloth for dyes: Mounts roll of cloth on machine or pulls supply cloth from handtruck or overhead poteyes and sews end to leader in machine, using portable sewing machine. Turns valve to admit caustic into vats and handwheel to adjust *tenter frame* clips to maintain tension on cloth and prevent

shrinkage as cloth passes through soapy-water spray. Sets thermostat to control temperature of caustic bath. Starts machine and observes flow of cloth through machine units to detect holes in cloth and torn selvages. Cuts out defects, using scissors, and seams ends of cloth. Turns knobs on control panel to synchronize motor speeds of machine units. Adds soap to wash bath as suds are depleted.
GOE: 06.04.16 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

584.685-018 COATING-MACHINE OPERATOR II (tex. prod., nec)
Tends machine that applies asphalt to textile bag material to waterproof material: Lifts roll of textile bag material, roll of paper dipped in hot asphalt, and roll of clean paper onto machine brackets. Threads ends of rolls with asphalt paper inserted between textile bag material and clean paper through machine guide rolls and fastens ends to winding spindle. Starts machine and observes operation to ensure even winding. Glues ends of new rolls of paper to paper in machine and sews end of new roll of textile bag material to roll in machine, using portable sewing machine. When tending machine that applies glue-backed strips of corrugated paper to burlap or other textile bag material preparatory to fabrication of dustproof bags, is designated Padding-Machine Operator (tex. prod., nec).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

584.685-022 FOXING PAINTER (rubber goods)
Tends machine that paints decorative edges or stripes on foxing strips: Fills machine reservoir with latex paint of color specified on work ticket. Hangs foxing strips on stand near machine. Adjusts distance between roller and regulates distance strip can be inserted between rollers to locate stripe as specified. Starts machine for roller to pick up paint, peels foxing strip from board, and positions strip against back guide and between rollers that paint colored stripe. Examines stripe for insufficient or excess paint and misalignment, and adjusts rollers and guide to eliminate defective painting. Places acceptable strips between cloth page of book for use by assemblers.
GOE: 06.04.21 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

584.685-026 HAT-STOCK-LAMINATING-MACHINE OPERATOR (hat & cap) alternate titles: combiner; hat-brim-and-crown-laminating operator; ironer; presser
Tends machine that sprays adhesive onto sheets of material and presses material together to form stock for manufacturing hatbrims and crowns: Secures rolls of material, such as cotton, paper, or wool, on holders of machine. Starts machine and inserts ends of sheets between feed rollers that carry materials under spray nozzle for application of adhesive. Aligns edges of coated sheets as sheets pass under heated presser rollers, forming hatbrim and crown stock. Fills machine reservoir with premixed adhesive. Turns bolts to adjust clearance of presser rollers to accommodate thickness of material to be joined, using wrench.
GOE: 06.04.05 STRENGTH: H GED: R2 M1 L2 SVP: 4 DLU: 77

584.685-030 KNIFE-MACHINE OPERATOR (textile) alternate titles: foaming machine operator
Tends machine that applies and smooths stiffening compounds, such as starch, onto cloth: Lifts roll of cloth onto machine brackets. Threads cloth end through machine rollers and dryer and ties leader strap to takeup reel. Lowers doctor and turns setscrews to adjust tension on cloth and set guide devices. Pours compound on cloth directly in front of knife assembly and spreads compound evenly with paddle. Starts and observes operation of machine, and adds compound as needed. Lifts finished roll from takeup reel after cloth has passed through dryer. May tend machine that automatically applies stiffening compound to cloth before cloth is drawn beneath knife.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 4 DLU: 77

584.685-034 LAMINATOR (tex. prod., nec)
Tends machine that combines layers of quilted fabric and printed burlap for use in producing decorative pot holders: Presses button to start machine and inserts fabric between rollers of glue spreader that coats fabric with adhesive. Positions burlap over fabric and inserts layers of material between rollers that press and bond fabric and burlap.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

584.685-038 LATEXER I (protective dev.)
Tends machine that applies latex coating to reverse sides of surgical elastic supports, such as wrist, knee, and elbow braces, to prevent raveling of threads: Fills machine reservoir with sealant. Inverts support, cuts excess threads, using scissors, and places support on roller. Presses levers and pedals to start machine that applies coating to article. Removes support from machine, reverses support, and drops article in handtruck. May tend machines that wash and dry surgical supports.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

584.685-042 MANGLE TENDER (textile) alternate titles: cloth presser; mangler
Tends mangle that wets-out cloth or applies finishing chemicals, such as size starch, synthetic resins, or cellulose derivatives to cloth: Positions trucks of cloth at feed-end of machine and threads cloth through guides, under immersion roll, and through expander attachment and squeeze rolls, or sews end of cloth to leader in machine, using portable sewing machine. Turns valve to admit water, starch, or finishing solution to trough of mangle. Turns handwheel to set pressure of squeeze rollers according to thickness of cloth. Observes flow of cloth through mangle to detect holes and torn selvages. Cuts flaws from cloth, using scissors, and sews ends of cloth together. May tend machine arranged in tandem with *drying cans, tenter frame* or *curing oven*. May be designated according to fluid used in trough as Starch-Mangle Tender (textile); Water-Mangle Tender (textile).
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

584.685-046 TARRING-MACHINE OPERATOR (tex. prod., nec)
Tends machine that coats twine with tar to strengthen and waterproof twine: Pours tar into tarpots. Creels machine with bobbins of twine. Removes tarpot roller and threads ends of twine through tarport and strippers and attaches ends to takeup bobbins. Replaces tarpot roller and starts machine. Observes operation to detect malfunctions, such as broken and tangled twine, and to ensure that specified amounts of tension and tar are applied to twine. Doffs tarred bobbins of twine.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

584.685-050 WAX-MACHINE OPERATOR (textile)
Tends machines that wax fiberglass yarn under pressure: Positions bobbins of yarn over perforated spindles in waxing kettle and pushes levers to force pressure caps onto bobbins and lower and lock lid onto kettle. Turns valves to start flow of wax from melting tank into reservoir and to regulate steam to maintain specified temperature. Starts automatic waxing cycle and pump that forces wax through spindle onto yarn. Observes thermometer and gauges to determine temperature and level of wax. Removes bobbins of waxed yarn from kettle and places bobbins on cart. Places chunks of wax in melting tank to maintain specified level in reservoir and tank.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

584.685-054 YARN-MERCERIZER OPERATOR I (textile) alternate titles: mercerizer-machine operator; mercerizer; skein-mercerizing-machine operator
Tends machine that mercerizes yarn in skein form: Shakes skeins of yarn to remove tangles and loads skeins on roller arms of machine. Starts machine that puts yarn under tension, passes skeins through caustic solution, and rinses skeins. Tests caustic solution, using hydrometer, and adds soda or water to maintain uniform strength as specified. Removes skeins from mercerizer and hangs skeins on rack of tank for neutralizing. Turns valves to start spray of water and neutralizing solution. Tests neutralization, using litmus paper. May weigh and mix caustic and neutralizing solutions according to formula. May extract moisture from yarn [EXTRACTOR OPERATOR (textile)] and dry yarn in steam chamber [SKEIN-YARN DRIER (textile)].
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

584.685-058 YARN-MERCERIZER OPERATOR II (textile) alternate titles: mercerizer-machine operator; mercerizer
Tends *range* that mercerizes and dries yarn in warp form: Pours caustic soda, acids, and softeners into mixing tanks, according to formula. Turns valves to allow solutions to flow into mercerizing, neutralizing, and finishing vats. Mounts balls of warp yarn in creel, using hoist or lift and aid of YARN-MERCERIZER-OPERATOR HELPER (textile). Ties ends of warp to leader, starts machine, and observes movement of warp through baths to detect breaks or tangles. Pulls broken yarn from vat, using hook, and ties ends. Tests caustic solution, using hydrometer, and adds water or caustic to restore solution to prescribed strength. Adjusts controls to regulate water and drier temperature and speed at which yarn passes through machine, according to yarn type. May tend discharge end of drier and observe yarn passing through *swing-folding attachment* into handtruck, boxes, or cans. May oil and make minor adjustments and repairs to machine.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

584.686-010 YARN-MERCERIZER-OPERATOR HELPER (textile)
Assists YARN-MERCERIZER OPERATOR (textile) II in mercerizing yarn, performing any combination of following tasks: Mounts balls of warp yarn in creel, using hoist or lift truck, with aid of operator. Straightens tangled yarn and ties broken ends. Conveys yarn and chemicals to and from storage, using handtruck. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

584.687-010 LEATHER COATER (leather mfg.) alternate titles: doper; enameler; hand finisher; japanner; leather dresser; load mixer; pourer; seasoner, hand; split-leather mosser; streaker-off, hand; swabber; tannery gummer
Spreads premixed solutions, such as dope, grease, or lacquer, on leather, using applicator, to finish or waterproof leather. Positions coated leather on conveyor belt to move leather through drying oven.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

584.687-014 SPRAYER, HAND (leather mfg.) alternate titles: leather pourer; leather sprayer; pourer; stencil sprayer
Sprays solution on tanned hides or skins in preparation for further processing or to finish surface of leather, using spray gun: Fills supply tank with specified solution. Hangs leather on hooks in spray booth or over rack and sprays solution on leather. Examines surface of leather to verify completeness of coverage and places leather on drying rack. May mix dyes and chemicals to attain specified color shading. May handle parts for further processing. May be designated according to solutions sprayed as Color Sprayer (leather prod.); Dope Sprayer (leather mfg.); Final-Coat Sprayer (leather mfg.); Gum Sprayer (leather mfg.); Oil Sprayer (leather mfg.); Seasoning Sprayer (leather mfg.).

GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

585 SINGEING, CUTTING, SHEARING, SHAVING, AND NAPPING OCCUPATIONS

This group includes occupations concerned with burning, scraping, scratching, and similarly working materials for such purposes as removing undesirable components (lint and hair) from them; smoothing their surfaces; removing desirable components (shearing fur from pelts); severing material into sections to facilitate further processing; and obtaining special effects, such as producing a woolly surface on fabrics by passing them over rollers covered with sharp, thin points, or bristles, which scratch and pull up the fibers.

585.130-010 SUPERVISOR, CORDUROY CUTTING (textile)

Supervises and coordinates activities of workers engaged in cutting floats on *filling pile fabrics*: Examines machines and cloth for cutting defects and directs CUTTING-MACHINE FIXER (textile) to repair or replace defective machine parts. Trains workers in operations, such as cutting floats, sharpening knives, and detecting uncut floats. Performs other duties as described under SUPERVISOR (any industry) Master Title.

GOE: 06.01.01 STRENGTH: M GED: R4 M2 L3 SVP: 6 DLU: 77

585.380-010 CUTTING-MACHINE FIXER (textile)

Sets up and repairs machines that cut floats on *filling pile fabrics*, employing knowledge of machine operation and cutting process: Turns thumbscrews to raise or lower straightedge (metal bar over which cloth passes) so that blades will cut through filling floats without damaging ground cloth, using thickness gauge as guide. Patrols work area and examines cloth and machines to detect operating defects. Replaces worn or broken parts, such as belts, cams, gears, pulleys, and cutting blades, using handtools. May operate grinding machine to sharpen cutting blades. May lubricate machine.

GOE: 06.01.02 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 77

585.565-010 CORDUROY-CUTTER OPERATOR (textile) alternate titles: cutting-machine operator

Tends one or more cutting machines that cut woven races in greige corduroy cloth: Sews end of cloth to leader, using portable sewing machine. Places slotted wire guides under circular cutting blades so blades project into guide slots, and inserts guides into alternate races with fingers. Positions magnetic stop-motion bar that automatically stops machine when guides slip out of cloth races and make contact with bar. Starts machine and observes cloth to detect inferior cutting. Notifies CUTTING-MACHINE FIXER (textile) of inferior cutting resulting from machine malfunction. Withdraws guides at seams, pulls seam through machine, and inserts guides into races behind seam to continue cutting process. Records lot number, piece number, yardage, and production. Doffs cloth from *swing-folding attachment* onto handtruck. Points guide tips and aligns guides, using pliers, whetstone, and emery cloth.

GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.665-010 NAPPER TENDER (knitting) alternate titles: fleecer

Tends machine that raises nap on socks to produce woolly appearance: Starts machine and feeds socks into rollers that automatically position socks under revolving wire-covered cylinder for brushing. Removes napped socks from machine. Examines socks to determine if nap has been raised according to specifications and notifies fixer of machine malfunction. May turn handwheel to adjust height of cylinder according to sock thickness.

GOE: 06.04.05 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

585.681-010 FLESHER (leather mfg.) alternate titles: fur scraper; hide cleaner; pelt scraper

Scrapes particles of flesh, fat, or protective tissue from skins or pelts to clean and soften them: Scrapes particles off with knife or straddles bench that has vertical knife attached and pulls skin over angled knife to remove excess or precise amount of particles, taking care not to cut into skins. Sharpens cutting edges of knife and bends knife to specified shaving angle, using handtools. May use rotary knife or rotary blade to scrape pelts. May be designated according to kind of pelt scraped as Rabbit Flesher (leather mfg.).

GOE: 06.01.04 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 77

585.681-014 FUR PLUCKER (leather mfg.)

Removes guard hairs (long coarse hairs) from pelts of fur-bearing animals, such as beavers, nutrias, and rabbits, to enhance appearance of finished pelts, using fur plucking device: Wraps forward edge of pelt around rod of movable frame to expose hairs for plucking. Starts device and pushes frame towards rotary head that plucks (cuts off) guard hairs, taking care not to damage shorter hairs in pelt. Wraps remainder of pelt around rod to facilitate complete removal of coarse hairs from pelts. May pluck hairs from pelts, using beaming knife.

GOE: 06.02.27 STRENGTH: L GED: R3 M1 L2 SVP: 6 DLU: 77

585.684-010 TRIMMER, HAND (leather mfg.) alternate titles: bend trimmer; block trimmer; blue-line trimmer; counter-pocket trimmer; edge trimmer; grader; preparer; ripper; snipper; trimmer and sorter; unbundler

Marks cutting lines on hides and trims ragged edges, thin areas, and brand marks from hides, using rule, pattern, knife, and chalk. May be designated according to hide trimmed as Black-Leather Trimmer (leather mfg.); Blue-Split Trimmer (leather mfg.); Lambskin Trimmer (leather mfg.); Lime Trimmer (leather mfg.); Raw-Hide Trimmer (leather mfg.); Wet Trimmer (leather mfg.).

GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

585.685-010 BRIM-POUNCING-MACHINE OPERATOR (hat & ca
ternate titles: brim pouncer; fast-brim pouncer

Tends machine that abrades felt hat brims to smooth brims and remov
cess fibers: Positions hat in guide between feed and sanding rollers of mac
Depresses pedal to start machine that forces brim against abrasive cone, re
ing excess fibers and smoothing brim. Removes hat from machine, inverts
repositions hat to smooth other side of brim. Feels brim surface to asce
that specified texture has been attained and removes hat. Turns setscrew t
move and replace sanding cone, using screwdriver. When tending machine
abrades brims by action of sandpaper pads mounted on adjustable arms, is
ignated Jigger-Brim-Pouncing-Machine Operator (hat & cap).

GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 78

585.685-014 BUFFER (hat & cap) alternate titles: buffing-machine o
tor; sander; scratcher; wool-hat-sanding-machine operat

Tends machine that buffs unfinished felt or wool hat bodies to raise, sm
or polish nap: Secures hat block of specified size in chuck of machine,
hat body over block, and starts machine. Depresses pedal to rotate block
force hat body against rotating felt, sandpaper, or sharkskin-covered bu
wheels to raise nap or smooth and polish body. Releases pedal to stop mac
when buffing is completed and removes body from block. Turns hat bod
side out and replaces body on block to buff inside surfaces. May be desig
according to type of machine tended as Brim Buffer (hat & cap); Crown B
(hat & cap); Hat Buffer, Automatic (hat & cap).

GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

585.685-018 BUFFER, MACHINE (leather mfg.) alternate titles: buf
wheel operator; burnisher; buzzle buffer; leather sander

Tends machine that buffs hides to specified finish: Turns setscrews to r
late distance between rollers, according to thickness of hide. Inserts hide
tween rollers and starts machine. Holds half of hide while rollers buff su
of other half. Repeats buffing operation on unbuffed portion of hide. Ma
designated according to hide buffed as Black-Leather Buffer (leather m
White-Kid Buffer (leather mfg.). May tend machine equipped with abra
covered rollers that form nap on surface of leather and be designated Sued
Wheel Operator (leather mfg.).

GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

585.685-022 CHINCHILLA-MACHINE OPERATOR (textile) alternat
tles: curling-machine operator; whirling-machine operato

Tends machine that curls pile of fabric to simulate natural fur: Positions t
of cloth at feed-end of machine. Sews cloth to leader in machine, using port
sewing machine. Turns knob to raise or lower curling brushes accordin
depth of pile. Straightens cloth to remove wrinkles before cloth passes u
rotating brushes. Feels curled pile to detect knotting of fibers caused by bru
being out of adjustment. Notifies supervisor when knots are found. Cleans a
mulated fibers from brushes, using hook. Ravels seam to separate roll at
of piece. Pulls or lifts roll onto truck. May replace defective brushes, u
handtools.

GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-026 CLOTH TRIMMER, MACHINE (textile) alternate tit
shear tender

Tends machine equipped with rotary blades that trim loose threads from
vage of cloth: Segregates cloth according to type and width. Turns wheel
set width and *tension guides* on machine for each batch. Inserts rod into ce
of cloth roll and lifts roll onto machine brackets. Sews cloth end to leade
machine, using portable sewing machine. Observes cloth feeding into scray
over inspection board to detect torn selvages, holes, or soils, and cuts out t
sections, or identifies defects with adhesive stickers. Ravels seam to sepa
roll of trimmed cloth and doffs roll, using hoist, or by pushing it onto platfo
Starts cloth winding onto new beam or tube. May verify yardage in rolls. M
work as member of team to creel and doff cloth rolls.

GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-030 CONCAVING-MACHINE OPERATOR (boot & shoe)

Tends machine that hollows (concaves) front of shoe heel to specified sha
Inserts heel into holding device of machine. Depresses pedal to start mach
that automatically forces heel against revolving cutting blades, hollowing a
shaping front of heel.

GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-034 CORDUROY-BRUSHER OPERATOR (textile)

Tends machine equipped with series of brushing units that raise and set p
of such fabrics as corduroy and velvet: Pushes truck or roll of cloth into fe
ing position. Sews end of cloth to leader in machine, using portable sewing m
chine. Turns crank to set width guides according to width of cloth. Starts m
chine and observes cloth to detect grease spots, holes, or torn selvages as cl
is drawn between rollers and brushes. Turns valve to admit water into trou
of wet brushing unit. May doff cloth from *swing-folding attachment* onto han
truck.

GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-038 CUT-LACE-MACHINE OPERATOR (leather prod.) alte
nate titles: cutter, machine; leather-stripping-machine oper
tor; tanned-hide-cutter, machine; width stripper

Tends machine that cuts leather into strips (lace) for power-transmission be
ing, dress belts, or boot laces: Scribes line along edge of tanned hide, usi

ruler, chalk, or pencil. Cuts leather along ruled line to square edge, using knife. Turns screws to adjust machine guide to specified width. Starts machine and inserts leather between feed rollers, against machine guide, and under circular knife that cuts leather into strips. Ties strips into bundles for further processing or shipment by hand or using automatic bundling machine. May be designated according to product as Belting Cutter (leather prod.); Boot-Lace Cutter, Machine (leather prod.); Sole-Stock Cutter (leather prod.).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-042 ELECTRIFIER OPERATOR (textile) alternate titles: hummer operator

Tends machine equipped with heated, fluted roller that separates, polishes, and raises or flattens pile of plush fabrics: Positions truck of cloth at entry end of machine and sews cloth from truck to leader in machine, using portable sewing machine. Turns knob on thermostat to set temperature of cylinder according to specifications. Starts machine and moves lever to set pressure on hydraulic apron that presses cloth against cylinder to raise or flatten pile as specified. Straightens cloth to remove wrinkles before cloth passes between apron and cylinder. Compares finished cloth with standard swatch, and notifies supervisor if cloth varies from standard. Hangs cloth in loops on racks at delivery end of machine to prevent crushing of pile or doffs rolls of fabric when pile has been flattened. Ravels seams to separate cloth pieces. May tend mangle in tandem with machine to apply finish to cloth [MANGLE TENDER (textile)].
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-046 FUR-CUTTING-MACHINE OPERATOR (hat & cap) alternate titles: chopper; clipper; cutter; fur-trimming machine operator; pelt shearer; shaver; shearer

Tends machine that cuts fur from pelts or trims excess fur from hat and cap parts: Turns setscrew to adjust machine guide to accommodate thickness of pelt or fur-covered parts, such as cap linings or ear flaps. Starts machine and feeds articles against machine guide and under feed roller. Removes fur cuttings from machine tray and places items in containers for further processing. Gathers pelts and places pelts in bags for disposal.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-050 GASSER (textile) alternate titles: thread singer

Tends machine that singes nap or loose fibers from thread: Creels machine with packages of thread. Draws thread from creel, lays individual ends of thread between teeth of expansion combs, pulls thread over gas burner, and loops ends of thread around takeup spools. Turns valve to start flow of gas and lights flame, using spark lighter. Starts machine that automatically swings flame beneath thread and observes flow of thread through machine to detect breaks in thread ends. Stops machine and ties breaks in thread by hand. Doffs spools of singed yarn.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-054 GIG TENDER (textile) alternate titles: gigger

Tends machine that raises and sets direction of fiber on surface of woolen cloth, imparting soft and lofty hand to cloth: Mounts roll of cloth on shaft at feed-end of machine, using hoist. Sews end of cloth to leader in machine, using portable sewing machine. Turns handwheels to raise or lower contact rollers that press cloth against gigging cylinder to control amount of nap. Turns valves to admit water into wet-out boxes. Starts machine and processes cloth back and forth through machine until nap has been raised according to specifications. Relaxes pressure on contact rollers and processes cloth through machine to set direction of nap. Doffs rolls of cloth from delivery end of machine. May tend machine equipped with steaming roller rather than wet-out boxes and be designated Steam Gigger (textile).
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-058 JIGGER-CROWN-POUNCING-MACHINE OPERATOR (hat & cap) alternate titles: crown-finishing-machine operator; crown pouncer; pouncing-machine operator

Tends semiautomatic machine that abrades hat crowns to remove excess fibers and impart smooth finish: Selects hat block, according to size specifications, and attaches hat block to spindle of machine, using screwdriver. Turns handwheel to adjust tension of sanding belt against surface of hat. Slips hat onto block and moves lever to start machine that sandpapers crown. Feels surface of crown to ascertain smoothness of nap, and stops machine when specified texture is attained. Turns hat inside out and repeats operation to smooth inside of crown. Threads sandpaper from holder over machine guides as sanding belt becomes worn.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

585.685-062 LABEL PINKER (narrow fabrics)

Tends machine equipped with pinking attachment that cuts strips of labeling material into individual labels: Positions roll of material on holder and inserts end in feeding mechanism. Turns dial to set counter for specified number of labels to be cut. Starts machine and observes cut labels to detect cutting defects. Removes defective labels and notifies machine fixer to adjust machine. Packs specified number of labels in box. May tend machine that cuts labels without pinking and be designated Label Cutter (narrow fabrics).
GOE: 06.04.05 STRENGTH: S GED: R2 M1 L1 SVP: 2 DLU: 77

585.685-066 MELLOWING-MACHINE OPERATOR (hat & cap) alternate titles: brim flexer

Tends machine that flexes hat brims and raises nap to improve pliability and appearance of brim: Starts machine and inserts hat brim between feed rollers and cloth-covered pads or rollers that bend and rub brim to flex brim and raise nap. May be designated according to type of hat processed as Felt-Hat-Mellowing-Machine Operator (hat & cap).
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

585.685-070 NAPPER TENDER (tex. prod., nec; textile) alternate titles: brushing operator; napper operator; napper

Tends machine that raises fibers on surface of cloth to give cloth soft, fluffy texture: Positions truck of folded cloth at entry end of machine or mounts roll of cloth on machine brackets. Sews cloth to leader in napper with surface to be napped contacting napping cylinder. Feeds each lot of cloth through machine for specified number of nappings. Examines and feels cloth to determine that finish conforms to standards. Ravels seams between cloth lots and doffs machine. May mark lot numbers on cloth with crayon. May turn handwheels to change machine speed and adjust cloth tension according to texture of cloth. May be designated according to type of material napped as Silk Brusher (textile); Sueding-Machine Tender (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-074 POUNCING-LATHE OPERATOR (hat & cap) alternate titles: crown pouncer; end-lathe operator; pouncer; pouncer, machine; pouncing-machine operator; turn-machine operator

Tends machine that abrades hat crowns to impart smooth, finished appearance: Selects specified hat block and installs block on machine. Moves lever to clamp block in place and pulls hat over block. Starts machine that starts block rotating and forces sanding pads, arm, or abrasive wheel against surface of hat to smooth crown and impart specified texture. Removes hat, turns hat inside out, and repeats sanding operation to smooth and finish inside of crown. Removes hat and inspects it for smoothness of finish.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-078 ROLLING-MACHINE OPERATOR (textile) alternate titles: glacing-machine tender

Tends machine that raises nap on skeins of yarn or thread: Slips specified number of skeins on rollers of machine in belt form. Turns handwheel to adjust tension on skeins. Starts machine and guides skeins with pole to keep skeins centered on rollers. Removes skeins, twists ends of skeins, and places skeins in truck.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

585.685-082 ROTARY CUTTER (boot & shoe)

Tends machine that cuts leather into *blockers*: Installs cutting disks in machine, using wrenches. Places leather on cutting bed, smooths out wrinkles, and positions leather according to shape of piece and pattern of grain. Trims offal from leather, using knife. Starts machine and guides leather over feed roller that forces it against row of revolving disks that cut leather into blockers.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-086 ROUNDING-MACHINE OPERATOR (hat & cap; tex. prod., nec) alternate titles: brim cutter; cutting-machine operator; flange cutter; round-cutter operator; rounder

Tends machine that cuts frayed edges or excess material from articles, such as hat brims or fabric buffing wheels, or separates hat brims from crowns prior to finishing operations: Measures radius of article, using ruler. Turns setscrews on machine guide to adjust width of cut, according to specifications. Positions edge of article or crown against guide on bed of machine and pulls lever to lower rotary cutting blade onto article. Depresses pedal or pushes button to start machine that rotates article against revolving blade to cut article. May rotate article against cutting blade by hand. May be designated according to material cut as Straw-Hat-Brim-Cutter Operator (hat & cap); Trimmer, Buffing Wheel (tex. prod., nec). May tend machine that rakes and trims buffing wheels simultaneously and be designated Facer, Buffing Wheel (tex. prod., nec).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

585.685-090 RUG INSPECTOR (tex. prod., nec)

Tends machine that cuts rug felt to specified width: Pulls felt from roll on table, examines felt for imperfections, such as light spots and burrs, and removes imperfections using tweezers. Clamps end of felt to winding roll and starts machine that rewinds inspected felt. May set circular cutting knives and cut felt to specified width.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L1 SVP: 4 DLU: 77

585.685-094 SHAVING-MACHINE OPERATOR (leather mfg.)

Tends machine that scrapes flesh or hair from pelts, shears wool on sheepskin to specified length, or shaves hides to uniform thickness: Turns handwheel or setscrew to adjust feed roller to specified height. Places pelt or hide on roller and presses pedal to raise roller that feeds hide to clippers or revolving blades. Verifies thickness of hide, using micrometer. May sharpen blades, using honing stone. May be designated according to operation performed as Fleshing-Machine Operator (leather mfg.); Shearing-Machine Operator (leather mfg.); Unhairing-Machine Operator (leather mfg.).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-098 SHEARING-MACHINE FEEDER (leather mfg.) alternate titles: shearer

Tends machine that shears fur on pelts, such as lamb and beaver, to produce pelts with hair of uniform length, or obtain specific effect: Arranges skin, fur side up, on conveyor belt, feed tray, or cloth covered roll and fastens skin to

pins protruding through cloth. Turns setscrews to adjust clearance between feeding device, conveyor belt, or rollers, according to specifications, using gauge, or type and size of pelt. Starts machine and guides pelt through rollers, equipped with upper rotary blade that shears fur from pelt.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-102 SHEARING-MACHINE OPERATOR (carpet & rug; textile) alternate titles: brusher and shearer; cloth shearer; shear operator

Tends machine that shears nap, loose threads, and knots from cloth or carpet surface to give uniform finish and texture: Mounts roll of cloth on brackets at feed-end of machine, using hoist or by lifting one end at a time. Sews end to leader, using portable sewing machine, or pulls end of cloth over and under several feed rollers, under knife blade roller, over wire point (brush) tension roller, and secures end to takeup beam. Turns crank to regulate knife blade roller to cut nap to specified depth. Starts machine and smooths wrinkles from cloth entering machine, using hands, to prevent blades from cutting into fabric. Raises knife blade roller to permit seams to pass under blades without being cut. Doffs roll of cloth from delivery end of machine. May replace knife blade, lubricate, and clean machine. May convey rolls of cloth to shearing machine.
GOE: 06.04.06 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-106 SINGER (textile)

Tends machine that singes nap or lint from cloth: Sews end of cloth to leader, using portable sewing machine, or threads end through machine rollers. Observes cloth to detect burning as cloth passes over heated plates, rollers, or gas flame, and through wetting-down equipment. Sets thermostat to maintain specified temperature of singeing element and prevent burning of cloth. Turns valve to control water flow to wetting-down equipment. May doff machine, using handtruck.
GOE: 06.04.16 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-110 SKIVER, BLOCKERS (boot & shoe) alternate titles: scarfer

Tends machine that cuts strips of leather to remove defects and bevel ends for use as trimmings: Examines stripping for defects, such as wrinkles, scars, and discolorations. Positions stripping against guide on machine bed. Pushes bed forward to force stripping against circular blade that cuts and bevels stripping.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.685-114 SPLITTER, MACHINE (boot & shoe; leather prod.) alternate titles: shaver; splitter; stripper

Tends machine that splits leather or shoe parts to reduce parts to uniform thickness or to cut parts into two or more layers, by any of following methods: (1) Feeds part between rollers that force part against blade. (2) Positions part against machine guides and depresses pedal to force splitting blade against part. (3) Holds part against guide and horizontal band-blade. Turns setscrews or handwheels to adjust blade or rollers as specified. Verifies thickness of parts with specifications, using gauge. May sharpen machine blades. May be designated according to parts split as Ball-Point Splitter (boot & shoe); Heel Cover Splitter (boot & shoe); Heel splitter (boot & shoe); Heel-Top-Lift Splitter (boot & shoe); Insole-And-Outsole Splitter (boot & shoe); Sole Splitter (boot & shoe). May be designated according to machine tended as Band Splitter (boot & shoe).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

585.685-118 STRIPPING CUTTER AND WINDER (boot & shoe)

Tends machines that rewind and cut rolls of material, such as cotton, nylon, and plastic into narrow rolls (stripping) for use in shoe ornamentation: Mounts roll of material on spindle and tightens clamps. Slides empty core on winding axle and threads end of material between pressure rollers and onto winding axle. Sets guide bar and starts machine that winds material onto core. Stops machine when counter indicates yardage specified on work ticket. Applies gummed tape to prevent unwinding. Positions roll on spindle of cutting machine and sets guide according to specifications. Pulls lever that starts machine and forces blade against roll to cut material into stripping.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

585.685-122 SWEATBAND SEPARATOR (hat & cap) alternate titles: size cutter; wired-sweatband cutter

Tends machine that separates, or cuts to size, hat sweatbands temporarily joined together to facilitate production: When separating sweatbands, joined by wire and thread, positions joint under blade on machine table. Depresses pedal to lower blade onto wire and thread, separating sweatbands. When cutting sweatbands to size, turns setscrews to adjust spacing of blades according to specifications. Positions sweatband on bed of machine against guides and under blades. Depresses pedal to lower blade, cutting sweatbands. May place sweatbands in containers or tie string around parts.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

585.685-126 TRIMMER, MACHINE (leather mfg.) alternate titles: shearer

Tends cutting machine that trims hides for further processing: Places hide on bed of machine. Starts machine and guides hide under blade, or blade through hide. Stacks trimmed hides on pallets.
GOE: 06.04.16 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

585.686-010 FEATHER-CUTTING-MACHINE FEEDER (tex. prod., nec)

Feeds feathers, used to stuff pillows, cushions, and mattresses into hopper of machine that cuts feathers into small pieces and discharges feathers into air duct leading to down separator.
GOE: 06.04.09 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

585.687-010 BEAMING INSPECTOR (leather mfg.) alternate titles: beam-house inspector; lime hide inspector; scudding inspector; unhairing inspector

Examines hides and skins for flesh and hair after defleshing and dehairing operations. Places rejected hides on pile for reprocessing and defleshed and dehaired hides on cart.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

585.687-014 CARPET CUTTER II (carpet & rug)

Cuts specified lengths from continuous roll of carpet, using power cut-off knife or long-handled cutting blade. May cut felt padding to specified lengths and be designated Felt-Pad Cutter (tex. prod., nec).
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

585.687-018 CLOTH-EDGE SINGER (textile)

Burns loose threads from edges of cloth rolls, using gas torch, and brushes off charred ends.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

585.687-022 PATCHER (leather mfg.) alternate titles: cementer; leather patcher; leather repairer

Inspects hides for defects, such as cuts, holes, and scars, and cements leather patch over defect: Examines defects and selects piece of leather that matches defective area in color and texture. Trims patch to size of defective area. Brushes cement on patch and hammers patch over defect, using mallet. Trims edges of patch, using knife and sandpaper. Folds and places hide on truck.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.687-026 SHADE-CLOTH FINISHER (furniture)

Fastens cloth onto stretching frame and brushes out nap after sizing solution is applied: Places sized cloth on glued surface of frame. Blends size on cloth with brush. Brushes cloth with straight strokes to smooth and lay nap in one direction. Stretches frame and cuts cloth out when dry. Rolls cloth onto rolling rod.
GOE: 06.04.33 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

585.687-030 SINGER (narrow fabrics)

Singes edges of rolls of glass tape to remove broken filaments, using lighted torch. Wraps specified number of singed rolls in paper and packs rolls in shipping cartons or stacks rolls in storage.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

586 FELTING AND FULLING OCCUPATIONS

This group includes occupations concerned with matting, toughening, and compressing materials into felt fabric by such means as mechanical oscillation, vibration, and compression, and the use of such agents as moisture, chemicals, soap, and heat; and thickening the fabric, decreasing its surface area, and imparting a fibrous cover by the application of soap, alkali, or acid combined with pressure and friction.

586.130-010 SUPERVISOR V (tex. prod., nec)

Supervises and coordinates activities of workers engaged in shrinking and hardening felt: Estimates processing requirements such as amounts of chemicals and length of processing cycles based on knowledge of working characteristics of materials and machine capability. Sets up felt-processing machines, assigns duties to workers, and assists workers in solving work-related problems. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to process supervised as Supervisor, Felting (tex. prod., nec); Supervisor, Fulling (tex. prod., nec).
GOE: 06.04.01 STRENGTH: M GED: R3 M2 L2 SVP: 6 DLU: 86

586.382-010 FULLING-MACHINE OPERATOR (tex. prod., nec)

Operates fulling machine to shrink and compress felt: Places roll of felt padding in trough of machine containing lubricating agents, such as soap solution. Threads end of felt beneath cam-actuated wooden blocks and onto takeoff reel. Starts machine and pushes felt evenly beneath blocks that pound and flatten felt. Measures rolls for specified thickness with gauge. Turns and inverts pads to ensure uniformity of size and shrinkage.
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

586.662-010 FELTING-MACHINE OPERATOR (tex. prod., nec) alternate titles: hardening-machine operator; lay-up presser

Operates felting machine to attach reinforcing burlap to felt strips or to compress several layers of felt by means of heat and pressure: Suspends roll of burlap and two *bats* of felt over conveyor belt. Starts conveyor and unrolls felt strips, with burlap strip between felt strips, onto conveyor. Opens steam valves or water sprays to moisten felt passing through steam chamber or beneath sprays. Stops conveyor when bed of hydraulic press is covered by felt strip. Opens steam valves to heat press bed. Starts oscillating hydraulic ram that compresses felt. Laps end of felt bat to ends of other bats to form continuous strip. Plucks foreign matter from felt surfaces with tweezers and spreads loose felt over thin spots to produce uniform products. Straightens layers of stock on press bed to remove wrinkled stock.
GOE: 06.02.05 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

586.682-010 FULLER (textile) alternate titles: fulling-mill operator; wet finisher, wool

Operates *fulling mill* to shrink and interlock fibers of woolen cloth by application of moisture, heat, and pressure: Threads cloth through tension guides or

rollers which control shrinkage in width between pressure rollers, and through trap (crimp box) which controls shrinkage in length. Sews ends of cloth together to form endless rope, using portable sewing machine. Turns handwheel to regulate pressure on tension guides and sets air pressure gauge on rollers and trap, following specifications for style of cloth. Turns valves to admit water and soap solution to tub through which cloth passes. Measures distance between markings on cloth to determine when specified shrinkage has been attained. Ravels seam connecting ends of cloth and guides cloth over reel into handtruck.
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

586.685-010 CARROTING-MACHINE OPERATOR (hat & cap)
Tends machine that applies *carroting* solution to fur pelts to condition fur fibers for manufacturing felt hats: Pours carroting solution of hydrogen peroxides, water, mercury and nitric acid into machine storage tank. Starts machine and turns valve to regulate flow of solution onto applicator brush. Lifts and feeds pelt under rotating brush or between rollers of machine that carrots fur fibers. May mix carroting solution.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

586.685-014 CONTINUOUS-CRUSHER OPERATOR (textile)
Tends crushing machine or *fulling mill* that crushes and dusts carbonized vegetable matter from woolen cloth: Starts crushing machine and observes as cloth flows back and forth, to detect tear-outs. Stops machine, disentangles tear-out, and threads cloth through crushing rollers to *swing-folding attachment*. Doffs trucks of cloth from delivery end of machine. Removes waste from dust bins. Threads cloth through pressure rollers of fulling mill and sews cloth ends together to form endless rope, using sewing machine. Starts machine that processes cloth through pressure rollers for specified period of time. Ravels seam at end of cycle, laps end of cloth over reel, and starts reel to transfer cloth from machine to handtruck.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

586.685-018 FELT-STRIP FINISHER (tex. prod., nec) alternate titles: microgrinder operator
Tends machine that sands and smooths surface of felt strips to reduce thickness and impart finish: Mounts roll of felt on machine brackets and draws end over and under machine bed and rollers onto takeup spindle. Turns handwheel to adjust clearance between sanding rollers according to specifications. Starts machine and observes felt for discolorations and loose fibers. Verifies thickness of felt, using gauge. Removes finished roll from machine.
GOE: 06.04.16 STRENGTH: H GED: R2 M1 L2 SVP: 3 DLU: 77

586.685-022 FELTMAKER AND WEIGHER (tex. prod., nec)
Prepares samples of felt for use in color matching and control: Mixes and weighs ingredients, and blends components in milling machine. Compresses blended material into felt samples [GARNETTER (furniture; tex. prod., nec)].
GOE: 06.04.16 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

586.685-026 HARDENING-MACHINE OPERATOR (hat & cap) alternate titles: hardener;
Tends machine that agitates fur felt hat cones to mat together interlocking fibers and harden cones preparatory to forming into hats: Wraps wet cones in burlap and wrings or places cones in extractor and starts machine to remove excess water. Wraps cones in woolen cloth and places cloth containing cones on rollers of hardening machine. Pulls handle to lower upper rollers onto cones and simultaneously start timed rollers that agitate cones and tighten fibers in tip of cones. Removes cloth containing cones and repeats operation to tighten fibers in brim area of cones. May inspect cones and work fibers into holes and thin spots, using fingers, to repair damaged cones.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

586.685-030 HAT-FORMING-MACHINE OPERATOR (hat & cap) alternate titles: cone former; coner; forming-machine operator
Tends hat-forming machine that mats together fur fibers into hat cones: Positions perforated metal cone on revolving turntable of machine that draws fur fiber onto metal cone. Closes doors of machine to preserve vacuum around metal cone. Depresses pedal to start conveyor belt that deposits preweighed amount of fur fiber in dome of machine. Observes fur flow onto cone and opens doors at completion of fur dumping cycle. Wraps damp cloth around felt cone and places metal cover over cloth. Carries cone from machine turntable to platform of sinker. Depresses pedal that lowers cone into heated water to strengthen fiber cohesion. Releases pedal to raise cone from sinker and removes cone. Removes cover, cloth, and felt cone from perforated cone. May tend machine that converts sheets of woolen fiber to form hat cones and be designated Wool-Hat-Forming-Machine Tender (hat & cap).
GOE: 06.04.16 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 78

586.685-034 SHRINKING-MACHINE OPERATOR (hat & cap) alternate titles: bumper-machine operator; sizer; starter; stumper
Tends machine that kneads fur (felt hat) cones to interlock fibers and shrink cones by either of following methods: (1) Positions cones on belt that moves cones beneath water sprinkler pipes, between rollers, and onto second belt that returns cones to worker. Measures cones, using ruler. Repeats process until cone has shrunk to size specified. (2) Places cones in machine cylinder and turns handle to fill cylinder with hot water, or pours acid-water solution into tank. Starts agitators that knead and tumble cones to interlock fibers and shrink cone. Measures cones, using ruler. Repeats process until cone has shrunk to specified size. May stretch cones to specified sizes, using wire frame.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 78

586.685-038 TESTING-MACHINE OPERATOR (tex. prod., nec) alternate titles: felt finisher
Tends machine that tests hard felt sheets for uniformity of thickness: Turns setscrews to set recorder dials and feed rollers for specific thickness of felt. Starts machine and guides felt between feed rollers. Observes recording dials to ascertain that felt thickness registers within allowable limits and rejects sheets not meeting specifications. Labels piles of accepted and rejected sheets. May reduce thickness of sheets, using drum-type sanding machine.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

586.686-010 CARROTING-MACHINE OFFBEARER (hat & cap)
Off bears pelts from *carroting* machine onto handtrucks for further processing in manufacture of felt hats.
GOE: 06.04.16 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

586.686-014 FELTING-MACHINE-OPERATOR HELPER (tex. prod., nec) alternate titles: hardening-machine-operator helper
Assists FELTING MACHINE OPERATOR (tex. prod., nec) to attach reinforcing burlap to felt strips or to compress layers of felt: Lifts *bats* of felt into place at end of conveyor. Smooths wrinkles from felt, and plucks foreign matter from felt, using tweezers. Laps ends of felt bats with ends of successive bats to form continuous strips of padding. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.04.05 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

586.686-018 HAT-FORMING-MACHINE FEEDER (hat & cap) alternate titles: cone-machine feeder; feeder; fur feeder; fur weigher
Weighs out fur fibers for use in making hats, and spreads fibers on conveyor leading to hat-forming machine: Weighs out specified quantity of fur required to form each hat, using scale. Spreads fibers on belt conveyor leading to feed gate of hat-forming machine, and moves lever to raise gate and dump fibers into machine. Stops conveyor after fur is dumped into machine.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

586.686-022 MACHINE HELPER (tex. prod., nec) alternate titles: general worker
Performs any combination of following tasks in machine manufacturing of felt goods: Cuts felt from feed rolls and removes rolls of processed material from machine. Marks length of finished felt on tag attached to roll. Lifts and positions rolls of base material and *bats* into feed holders of machine. Hand sews or glues together roll ends to form continuous feed through machine. Transfers materials by handtruck or dolly from discharge end of one machine to feed end of next. Picks up scraps of material around machine and throws scraps into bins or hoppers. Fills pans on machines with sizing inks. Measures and dumps spray solution ingredients in mixing vats according to specifications. Removes foreign particles from scoured and blended stock. Lifts felt rolls from conveyors, and stacks and bundles finished felt rolls to prepare rolls for shipment or stock. May assist operators to set up machine. May be designated by specific activity performed as Bat Carrier (tex. prod., nec); or according to machine operated as Box Feeder (tex. prod., nec); Cloth-Printer Helper (tex. prod., nec); Garnett-Machine-Operator Helper (tex. prod., nec); Needle-Loom-Operator Helper (tex. prod., nec); Sizing-Machine-And-Drier-Operator Helper (tex. prod., nec). May be designated: Coater Helper (tex. prod., nec); Die-Cutting-Machine-Operator Helper, Automatic (tex. prod., nec); Picking-Machine-Operator Helper (tex. prod., nec).
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 79

586.687-010 FELT CARBONIZER (tex. prod., nec)
Removes vegetable matter from felt by immersion in sulfuric acid solution: Mixes specified amount of sulfuric acid and warm water in carbonizing vat, and immerses felt in vat, using chain hoist. Soaks felt for period of time dependent on thickness of material. Periodically tests solution strength, using hydrometer. Adds acid as required. Removes and suspends felt over vat to drain.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

587 BRUSHING AND SHRINKING OCCUPATIONS

This group includes occupations concerned with going over materials with a brush to remove such undesirables as lint and loose thread, to improve appearance, or to align nap; and reducing the size of materials by such methods as saturating, spraying, and steaming.

587.384-010 CLOTH-SHRINKING TESTER (textile) alternate titles: wash-test checker
Tests cloth sample to determine potential shrinkage of sample in order to establish shrinking machine settings, and to verify effectiveness of shrinking process: Marks cloth sample at measured intervals, using template. Loads samples into washing drum and adds detergents. Starts machine that automatically washes and rinses samples and extracts excess water. Removes samples from machine at end of washing cycle and presses samples, using flatbed ironer. Measures distance between markings on cloth, using yardstick, and computes average shrinkage of length and width. Converts amount of shrinkage into machine settings, using conversion tables. Records measurements, cloth lot and style number, and machine settings on work ticket for use by CLOTH-SHRINKING-MACHINE OPERATOR (textile). Cuts samples from cloth after shrinking and tests cloth to verify that material meets shrinkage specifications.

GOE: 06.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

587.585-010 AUTOCLAVE OPERATOR (knitting)
Tends autoclave that steamsets hosiery or knitted garments into permanent shape: Stacks articles on machine trays, smooths wrinkles by hand, and pushes trays into autoclave. Turns thumbscrews to seal machine door and presses buttons to start automatic steaming cycle. Removes steamed articles from autoclave at end of steaming cycle and inserts them into bags for further processing. Trucks bagged articles to storage area. Records number of articles steamed and bagged.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

587.682-010 AUTOCLAVE OPERATOR (textile)
Controls autoclave to preshrink and preset yarn: Pushes racks of yarn inside autoclave and clamps door shut. Regulates time and temperature controls according to written instructions. Presses buttons to start pump that creates vacuum in autoclave chamber and turns valves to admit steam. Observes gauges and pneumatic controller graphs to ascertain that specified pressure, temperature, and vacuum are maintained to ensure conditioning of yarn according to specifications and to prevent collapse of autoclave. Closes valves and starts vacuum pump to remove moisture at end of steaming chamber. Opens door and removes processed yarn from autoclave to storage, using handtruck. Weighs yarn and records amount of yarn processed. May tend machine that automatically draws yarn into autoclave, seals doors, and discharges yarn at end of steaming cycle.
GOE: 06.04.16 STRENGTH: H GED: R3 M2 L2 SVP: 4 DLU: 79

587.685-010 BRUSH OPERATOR (textile) alternate titles: steam-brush operator
Tends machine that brushes foreign matter, such as lint, strings, and loose fibers from cloth: Pins or sews end of cloth to leader. Turns screws to adjust cloth tension and pressure of brushes. Starts machine and observes operation to detect imcomplete cleaning. Cleans and oils machine. May tend brushing machine with steaming attachment that sets cloth nap.
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

587.685-014 BRUSHER, MACHINE (hat & cap)
Tends machine that brushes fur pelts to straighten and fluff hairs preparatory to shearing fur for manufacturing felt hats: Starts machine and depresses pedal to move powered brush away from stationary rest on which pelts are placed for brushing. Positions pelt on rest and releases pedal to force moving brush against pelt, straightening and fluffing hairs. Piles furs for shearing by other workers.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

587.685-018 CLOTH-SHRINKING-MACHINE OPERATOR (textile) alternate titles: cloth shrinker; cloth sponger; cold-water machine operator; padding-machine operator; presetter operator; shrinker; sponger; water sponger; woolen-suiting shrinker
Tends machine that shrinks woven or knitted cloth to predetermined size: Mounts roll of cloth on machine, using chain hoist. Threads end of cloth through tension bars, guide and feed rollers, and through shrinking elements. Observes flow of cloth through machine onto *takeup roll*, or guides cloth onto shrinking elements to prevent wrinkles and uneven winding, or sets speed of elements according to shrinkage-control guide for various cloth styles. Turns valves or moves switch control to regulate flow of water or steam. May measure cloth width, using yardstick. May tend equipment that preshrinks woolen suiting fabric and be designated Soaker (textile). May sew, using portable sewing machine, or pin cut of cloth to cloth in machine. May doff rolls of shrunken cloth. May tend machine not equipped with water vat and be designated Steam-Pan Sponger (textile). Important variables may be indicated by processes or trade names of machines used.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

587.685-022 CONDITIONER TENDER (textile) alternate titles: conditioning-room worker; steam conditioner, filling; steamer; yarn conditioner
Tends steaming cabinet that conditions (sets twist or preshrinks) yarn with steam: Loads trays or racks of yarn on handtruck and pushes yarn into machine. Turns knobs to set time, temperature, and humidity controls, according to specifications. Turns valve to admit steam into cabinet. Removes yarn from conditioner at end of steaming cycle. May separate yarn according to size and grade. May inspect yarn for twist set and shrinkage. May record information, such as processing temperature, weight, or type of yarn on work ticket. May tend machine equipped with conveyor that moves yarn through machine.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

587.685-026 DUSTER (hat & cap)
Tends equipment that removes dust, fur particles, and lint from felt hats after pouncing operations, using any of following methods: Selects hat block, according to specifications. Turns screw to secure block on spindle, and slips hat over block. (1) Depresses pedal to start compressor that creates vacuum in slots of hat block and moves hat over slots to remove undesirable matter. (2) Depresses pedal to start hat and block rotating. Presses trigger on pneumatic gun to direct air over hat surface or holds brush against hat surface to dust hat. (3) Depresses pedal to move hat mounted on rotating block against rotating brush. Stops compressor or rotating block, turns hat inside out, and repeats dusting operation on inside of hat. May be designated according to method used as Hat Brusher, Machine (hat & cap).
GOE: 06.04.05 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 78

587.685-030 STRIKE-OUT-MACHINE OPERATOR (textile) alternate titles: tiger-machine operator
Tends machine that flattens pile of fabrics preparatory to dyeing or printing or to raise, soften, and fluff pile after wet-finishing processes: Positions truck of material at entry end of machine and sews end of cloth to leader in machine, using portable sewing machine. Presses button to set carding or brushing rollers according to finish specified. Starts machine and observes flow of cloth through machine to detect wrinkles, holes, and cloth seams. Smooths wrinkles by hand. Moves lever to lower cloth from rollers as holes and seams pass through machine. Doffs cloth from *swing-folding attachment*. May tend machine arranged in tandem with other finishing equipment.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

587.686-010 CLOTH-SHRINKING-MACHINE-OPERATOR HELPER (textile)
Assists CLOTH-SHRINKING-MACHINE OPERATOR (textile) in shrinking cloth: Pushes handtruck of rolled or folded cloth to machine and mounts roll on bracket of machine, using hoist. Threads ends of cloth through guides, rollers, and shrinking elements. Smooths folds of cloth being discharged into handtruck or removes rolls, using hoist. Performs other duties as described under HELPER (any industry) Master Title. May sew ends of new cuts to cloth already in machine. Important variables may be indicated by processes or trade names of machines used.
GOE: 06.04.16 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

587.687-010 CANVAS SHRINKER (textile)
Soaks canvas in water to shrink and prepare canvas for use in garment manufacturing: Unrolls bolt of canvas and folds canvas in shrinking tank. Turns valve to admit water into tank, soaking canvas for specified periods of time. Lifts canvas from tank after shrinking and hangs canvas in loops from bars for drying or delivers canvas to other workers.
GOE: 06.04.27 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

589 OCCUPATIONS IN PROCESSING OF LEATHER, TEXTILES, AND RELATED PRODUCTS, N.E.C.

This group includes occupations, not elsewhere classified, concerned with processing leather, textiles, and related products.

589.130-010 CLOTH FINISHER (carpet & rug; textile) alternate titles: finishing supervisor
Supervises and coordinates activities of workers engaged in finishing cloth, carpets, rugs, and other fabrics: Schedules finishing of cloth or carpeting according to color, width, and type of finish, to maintain efficient operation. Selects standard formulas that meet customer specifications or uses knowledge of finish ingredients and application methods to develop new formulas. Writes mixing instructions for use by CHEMICAL MIXER (textile). Writes work orders for supervisors indicating specified finish, style, and yardage of cloth or carpeting to be processed. Examines cloth or carpeting to verify that finish meets specifications. Inventories and orders chemicals and supplies from purchasing department. Trains workers in setup, repair, and operation of *ranges*, machines, and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to department supervised or process involved as Carpet-Finishing Supervisor (carpet & rug); Cloth-Bleaching Supervisor (textile); Cloth-Brushing-And-Sueding Supervisor (textile); Cloth-Laminating Supervisor (textile); Cloth-Mercerizing Supervisor (textile); Cloth-Napping Supervisor (textile); Cloth-Shearing Supervisor (textile); Cloth-Shrinking Supervisor (textile).
GOE: 05.09.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

589.130-014 FABRIC-COATING SUPERVISOR (tex. prod., nec) alternate titles: felt-coating-and-mixing supervisor
Supervises and coordinates activities of workers engaged in finishing coated fabrics, artificial leather, and felt: Sets up machines to make experimental samples, observes operation of machines to detect malfunction, and adjusts machines, using handtools. Trains workers in operation of machines and equipment. Inspects work of operators to verify coating weights, printing samples, and embossing imprints. Directs delivery of goods to cutting or shipping department. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to process involved as Calender Supervisor (tex. prod., nec); Coating Supervisor (tex. prod., nec); Felt-Finishing Supervisor (tex. prod., nec); Mixing Supervisor (tex. prod., nec); Printing Supervisor (tex. prod., nec); Trimming Supervisor (tex. prod., nec).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 8 DLU: 79

589.130-018 SUPERVISOR, FINISHING ROOM (leather mfg.)
Supervises and coordinates activities of workers engaged in buffing, brushing, coloring, embossing, and spraying leather. Moves controls to adjust embossing, finishing, and rolling machines. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

589.130-022 SUPERVISOR, FUR DRESSING (leather mfg.)
Supervises and coordinates activities of FUR-FLOOR WORKER (leather mfg.) and FUR DRESSER (leather mfg.) engaged in fleshing, plucking, shear-

ing, and shaving fur pelts to prepare pelts for manufacturing: Examines pelts during dressing process to determine cleanliness and suppleness of skins and softness and sheen of hair of furs. Trains workers in setting up and operating machines and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to operation supervised as Supervisor, Fleshing (leather mfg.); Supervisor, Fur-Floor Worker (leather mfg.); Supervisor, Shearing (leather mfg.).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

589.130-026 SUPERVISOR, MILL (tex. prod., nec)
Supervises and coordinates activities of workers engaged in cleaning, drying, and grading hemp fiber: Trains workers in machine setup and operating. Examines hemp fiber for defects. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

589.130-030 SUPERVISOR, SPLIT LEATHER DEPARTMENT (leather mfg.)
Supervises and coordinates activities of workers engaged in sorting, splitting, shaving, pasting, and drying leather. Sets up and adjusts machines. Requisitions supplies. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to activities supervised as Supervisor, Buffing-And-Pasting (leather mfg.); Supervisor, Drying-And-Softening (leather mfg.); Supervisor, Hanging-And-Trimming (leather mfg.); Supervisor, Shaving-And-Splitting (leather mfg.).
GOE: 06.02.01 STRENGTH: L GED: R3 M2 L3 SVP: 6 DLU: 77

589.132-010 SUPERVISOR VI (tex. prod., nec)
Supervises and coordinates activities of workers engaged in sorting, cleaning, cutting, garnetting, and packaging waste textile fibers, threads, and rags for use as batting, padding, and wiping rags: Spaces knives on delivery end of *garnett machine* according to width specified for batting. Weighs samples and adjust weight mechanisms on machines to meet processing specifications. Trains employees in operating and cleaning of machines. Requisitions materials and machine parts. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L3 SVP: 7 DLU: 77

589.132-014 SUPERVISOR, SPLIT AND DRUM ROOM (leather mfg.)
Supervises and coordinates activities of workers engaged in coloring, drying, and setting (smoothing grain) hides. Trains workers in operation of machines. Requisitions materials. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

589.134-010 SUPERVISOR, BEAM DEPARTMENT (leather mfg.)
Supervises and coordinates activities of workers engaged in trimming flesh, liming hair, and washing tanned hides. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

589.135-010 SUPERVISOR, PRODUCTION (tex. prod., nec)
Supervises and coordinates activities of workers engaged in washing, drying, separating, and crushing feathers used in stuffing housefurnishing goods, such as pillows and cushions: Reviews production schedule and assigns work duties. Demonstrates operation of machines and equipment. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.04.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

589.137-010 SUPERVISOR, PACKING ROOM (leather mfg.)
Supervises and coordinates activities of workers engaged in inspecting, measuring, and wrapping finished leather. Requisitions materials. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M2 L3 SVP: 7 DLU: 77

589.360-010 BONDING-MACHINE SETTER (textile)
Sets up and adjusts machines that bond, stretch, and apply finishing solution to thread to improve sewing quality: Changes charts in control boxes for recording temperature and viscosity strength and turns knob to set temperature control at specified level on oven unit. Turns handles on roller units to adjust speeds of front and back rollers and verifies revolutions (settings), using tachometer. Turns crank to adjust builder motion on takeup rack to facilitate uniform winding of thread on reels. Operates machine for test run to verify adjustments and to obtain thread samples. Conducts standard tests on samples to determine breaking strength, elongation, and weight of thread, using tensile-testing machine, skein winder, and grain scales. Posts results onto quality control reports. Maintains record of samples and customer orders processed. Changes felt covers on rollers and wipers and replaces worn or broken guides and tapes, using handtools. Lubricates machines, using oilcan.
GOE: 06.01.02 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

589.361-010 FUR DRESSER (leather mfg.) alternate titles: tanner
Tans and dresses pelts to improve luster and beauty or restore natural appearance of pelts: Prepares tanning and washing solutions according to formulas and places pelts in vats or revolving drums containing solution to clean, soften, and preserve pelts. Removes long coarse hair from pelts and evens length of underlying fur, using beaming knife and shaving knife [FUR PLUCKER (leather mfg.)]. Removes particles of flesh and fat from pelts and skins, using hand and powered knives determined by thickness and weight of pelt. Examines skins to detect defects, such as spaces, improper scraping, and tears. Records defect and sorts furs according to grade. May oil and clip pelts.
GOE: 06.01.04 STRENGTH: M GED: R3 M2 L3 SVP: 7 DLU: 77

589.384-010 PRODUCT TESTER, FIBERGLASS (textile) alternate titles: roving technician
Tests fiberglass products, such as bonded cord, insulation mats, roving, and staple lengths to determine if products conform to specifications: Determines breaking strength of bonded cord by mounting sample on arms of testing machine and moving machine controls that apply force necessary to rupture sample. Weighs insulation mat, bonded cord, or roving on balance scales before and after drying and computes percentage of moisture, wax binder, and solids in sample, using slide rule. Observes machines in operation to detect worn equipment, irregular roving packages, or dull cutters. Examines products for defects, such as dirt, frayed ends, clumps in mats, discolorations, and variation in number of ends. Measures staple lengths to verify conformance to standards, using ruler. Tests speed of machine spindles, using tachometer. Records tests results on quality control records and notifies production supervisors, machine repairer, and workers when machine operation, material, or products vary from standards. May perform physical tests to determine yarn porosity, diameter, or denier.
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

589.387-010 INSPECTOR AND SORTER (leather mfg.) alternate titles: assorter; bend sorter; grader; hefter; hide sorter; leather sorter; passer
Inspects and sorts processed material, such as hides, skins, or leather: Examines material for defects, such as brand marks, cuts, and scars, and trims defects from material, using shears. Verifies thickness of material, using gauge. Sorts material according to qualities, such as color, size, and thickness. Returns defective material for reprocessing. May be designated according to material sorted as Blue-Leather Sorter (leather mfg.); Patent-Leather Sorter (leather mfg.); Russet-Leather Sorter (leather mfg.).
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

589.387-014 WOOL SORTER (textile)
Sorts and grades wool according to length of fiber, color, and degree of fineness, utilizing sight, touch, experience, and established specifications: Shakes or spreads fleece over screen-topped table to remove dust. Picks out foreign matter, such as burrs, sticks, strings, and cinders. Breaks fleece into pieces and inspects and sorts pieces according to quality.
GOE: 06.03.01 STRENGTH: L GED: R4 M2 L3 SVP: 6 DLU: 77

589.387-018 WOOL-AND-PELT GRADER (meat products) alternate titles: slat grader
Inspects sheep and lamb pelts to determine condition of pelts and grade of wool: Examines and feels wool to determine color, texture, and length, and sorts pelts or loose wool into grades for pulling or drying. Inspects pickled slats (sheep skins) for cuts, tears, blemishes, and skin quality, and stacks pelts in piles according to grade. May record quantity and grades of wool or pelts inspected.
GOE: 06.03.01 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

589.387-022 INSPECTOR, FINISHING (tex. prod., nec)
Inspects finished felt for processing flaws, such as random thickness, grease spots, and dye marks, and grades felt, following grading specifications: Places roll of felt onto holding fixture at end of glass-top inspection table, assisted by another worker. Threads front end of felt strip between hold-down bar and table. Activates fluorescent light inside table and sets table gauges to measure length, width, and thickness of felt. Feeds felt onto takeup roller that pulls felt across lighted table. Depresses button to activate takeup roller. Examines felt for lint, grease spots, discolorations, and dye marks. Reads thickness and width gauges to verify conformity to specifications. Depresses button to stop takeup roller when felt meets length specification. Cuts felt from roll and weighs felt piece to detect deviation from prescribed weight. Marks ticket and attaches ticket to portion of felt that needs to be reworked or discarded. Records thickness, width, length, and weight of felt on mill ticket. Grades felt according to grading specifications.
GOE: 06.03.02 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 86

589.464-010 COLOR MIXER (furniture)
Mixes size and paint for use in manufacture of window-shade cloth: Mixes, cooks, and stirs size with paddle in steam heated pot. Tests mixture with hydrometer and thermometer and adds hot or cold water to obtain specified specific gravity. Mixes specified amounts of paint paste, oil, and turpentine, using portable electric mixer. Directs SHADE-CLOTH FINISHER (furniture) in such processes as paint spraying and shade cloth sewing.
GOE: 06.04.34 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

589.485-010 PAD-EXTRACTOR TENDER (knitting) alternate titles: extractor; processor
Tends machine that untwists and extracts water or chemicals from knit tubing after bleaching, washing, and dyeing, and applies finish to tubing preparatory to drying: Positions containers of wet knit tubing on turntable of machine. Turns thumbscrews to adjust width of spreader, according to specifications. Threads tubing through tension rollers and around spreader, and ties end of tubing to *leader*. Turns handwheel to regulate pressure on squeeze rollers. Turns valve to admit finishing solution into trough of machine. Starts machine and

observes operator to detect twists in knit tubing. Revolves turntable from which tubing is fed to untwist tubing. Measures width of tubing with hand rule to verify conformance to standards. Doffs tubing from *swing-folding attachment*. May mix finishing solution, following formula.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

589.487-014 WEIGHT-YARDAGE CHECKER (textile)
Computes weight per yard of cloth and compares computations with information on style card to determine conformance of cloth to weight standards: Reads ticket attached to cloth rolls for information, such as style, weight, and yardage. Computes weight per yard, using slide rule. Compares results with information on style card to detect variations from standards. Routes cloth that varies from standards to CLOTH MEASURER, MACHINE (garment; textile) for verification of measurement. Reports variations to supervisor. Records weight, yardage, weight per yard, and style number on production sheet. Marks identifying information on cloth.
GOE: 06.03.01 STRENGTH: L GED: R3 M3 L3 SVP: 3 DLU: 77

589.562-010 CLOTH-FINISHING-RANGE OPERATOR, CHIEF (textile) alternate titles: finishing range supervisor; range operator
Controls *range* consisting of units, such as chemical or dye pads, washboxes, steamboxes, J-boxes, *tenter frames*, *curing ovens*, and *drying cans* to desize, bleach, dye, or finish cloth and other textile goods: Lines up cloth to be processed according to priority, style, and width. Gives directions to CLOTH FEEDER (textile); CLOTH-FINISHING-RANGE TENDER (textile); and BACK TENDER (textile) engaged in tending range units to ensure that desizing, bleaching, dyeing, or other finishing processes conform to specifications. Tests chemical solutions by titration or with hydrometer to detect variation in strength and notifies mixing department to add required quantity of chemicals or water according to test results and specifications. Observes control panel and equipment to detect faulty operation and adjusts controls to synchronize motor-driven rollers. Records test results, style numbers, and yardage of cloth processed. May inspect cloth. May be designated according to process controlled as Cloth-Bleaching-Range Operator, Chief (textile); Cloth-Desizing-Range Operator, Chief (textile); Cloth-Dyeing-Range Operator, Chief (textile).
GOE: 06.04.16 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

589.662-010 SCOURING-TRAIN OPERATOR (carpet & rug; textile) alternate titles: scouring-machine operator
Operates scouring train (series of tanks or bowls) to wash, rinse, and dry raw wool preparatory to dyeing or carding: Turns valves to start continuous flow of water, detergent, and acid into bowls. Reads thermometer and turns steam valves to heat wash and rinse solutions to specified operating temperature. Starts machine that feeds raw wool from hopper into washbowl and activates rakes that move wool through bowls to squeeze rolls and rinse bowl. Patrols scouring train to detect choke-up at squeeze rolls and removes jammed fibers by hand. Observes sudsing in washbowls and turns valve to increase or decrease concentration of detergent. Tests acidity of solution in finishing bowl by titration. Turns valve to control flow of acid to maintain specified concentration. Starts fans that circulate hot air in drier. Feels wool delivered from drier and adjusts thermostatic control if wool is not dry. Drains and cleans machine. May feed raw wool into scouring machine hopper. May direct activities of team workers and be designated Scouring-Train Operator, Chief (carpet & rug; textile).
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

589.662-014 TIRE-FABRIC-IMPREGNATING-RANGE OPERATOR, CHIEF (tex. prod., nec)
Controls *range* to stretch and shrink sheets of tire fabric and reduce fabric elasticity: Turns valves and pushes buttons to start range, admit flow of steam, water, and finishing solutions to range units, and to regulate machine speeds and fabric tension. Records information, such as fabric yardage processed, temperature readings, fabric tensions, machine speeds, and delays caused by range malfunctions.
GOE: 06.02.16 STRENGTH: M GED: R3 M2 L2 SVP: 5 DLU: 77

589.665-010 BONDING-MACHINE TENDER (textile)
Tends machine that bonds, stretches, and applies finishing solution to synthetic thread to improve sewing quality: Places supply packages in creel. Draws ends from packages over, through, and around machine units, guides, and rollers, and attaches ends to takeup reels. Turns valves and taps to transfer bonding and finishing solutions to bath units. Observes operation to detect breaks or *laps*. Cuts tangles with knife and rethreads ends through machine units. Observes temperature and viscosity control charts for variations from standards. Adds chemicals to strengthen or dilute solutions or resets temperature indicator controls. Verifies roller speeds, using tachometer, and turns handle on roller units to adjust speeds. Reports malfunctions to BONDING-MACHINE SETTER (textile). Removes full packages from takeup rack and pushes yarn to storage area.
GOE: 06.04.16 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

589.665-014 CLOTH-FINISHING-RANGE OPERATOR (textile) alternate titles: backfiller; finishing-range operator; starcher-and-tenter-range feeder; treater
Tends feed-end of *range* that applies size, starch, water-repellent, wrinkle resistant, or other chemical finishes to cloth, stretches cloth to specified width, and dries finished cloth: Positions truck of folded cloth at feed-end of machine or inserts rod through cloth roll and pushes roll onto brackets. Sews cloth end to leader in machine, using portable sewing machine. Turns valve to permit flow of finish to trough under mangle. Turns handwheels and knobs to control temperature of *drying cans* and movement of cloth through range, and to adjust width and tension guides. Observes cloth entering machine to detect flaws, such as holes and torn selvages. Cuts out flaws, using scissors. When back-filling cloth with starch, positions doctor at specified angle to scrape excess starch from cloth. Cleans and greases machines. May be designated according to type of finish applied as Back Sizer (textile); Waterproofing-Machine Operator (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

589.684-010 RAKER, BUFFING WHEEL (tex. prod., nec)
Tests fabric buffing wheels to determine resistance to pressure and straightens edges of fabric, using metal rod: Mounts stack of buffing wheels on shaft in cabinet and closes cabinet door. Presses button to rotate buffing wheels. Rakes edges of revolving buffing wheels with slanted edge of rod through opening in cabinet. Removes wheels having frayed edges.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

589.685-010 BOARDING-MACHINE OPERATOR (knitting) alternate titles: boarder; boarder, machine
Tends machine that shapes and dries hose before or after dyeing process, using either of following methods: (1) Pulls hose over leg-shaped forms of machine, aligns toe and heel with form, and pulls welt down to specified point on forms. Presses button or depresses pedal to start conveyor that carries filled set of forms into drying chamber and removes finished set from chamber. Strips shaped hose from boarding forms. (2) Depresses pedal to start circular conveyor that carries forms through drying chamber and automatic stripping mechanism. Pulls and aligns hose over forms as conveyor moves forms in front of worker. Periodically feels surface of forms for roughness to determine need for waxing. May replace *toe boards* of boarding forms, using key. May turn valves to increase or decrease steam pressure and temperature of drying chamber according to type of hose being boarded. May be designated according to process as Preboarder (knitting). May tend machine that shapes, dyes, and dries hosiery and be designated Dye-Boarding-Machine Operator (knitting).
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 81

589.685-014 BREAKER-UP-MACHINE OPERATOR (hat & cap) alternate titles: breaker-up
Tends machine that agitates hats after blocking to render material soft and pliable: Places hats in chamber of machine and starts rotation of paddle arms that toss hats about until material becomes pliable. Stops machine after specified time and removes hats for further processing.
GOE: 06.04.16 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-018 BURN-OUT TENDER, LACE (tex. prod., nec)
Tends machine that burns out (dissolves) connecting threads in knitted lace to separate lace into individual bands: Loads beams of lace onto rack. Pushes rack into machine chamber and bolts door, using wrench. Turns valve to transfer acid solution from still to machine. Presses button to start rotation of lace in acid bath that dissolves connecting threads. Removes lace from machine for further processing. May tend still to reclaim solvents for reuse [STILL TENDER (any industry)].
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

589.685-022 CLOTH MEASURER, MACHINE (garment; textile) alternate titles: measurer, machine; measuring percher-and-inspector
Tends machine that measures cloth preparatory to or after dyeing and finishing: Threads cloth from supply truck, bale, or roll through feeder rollers, and laps end around *takeup roll* of machine or guides cloth through *swing-folding attachment*. Turns knob to set yardage meter to zero. Starts machine and straightens cloth that becomes twisted entering machine. Stops machine and records yardage of cloth as indicated by meter. May compare meter reading with yardage on manufacturer's tag and record difference. May weigh cloth and record weight.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

589.685-026 CLOTH-FINISHING-RANGE TENDER (textile)
Tends intermediate units of cloth or other textile goods desizing, bleaching, dyeing, or finishing *ranges*, such as washboxes, *tenter frame*, *drying cans*, *and curing ovens*: Turns valves to admit steam, water, and chemicals to washboxes and chemical troughs. Patrols area between entry and terminal units to detect faulty operation of equipment. Turns knobs to adjust temperature in drying and curing units and to regulate speed of motor-driven rollers, according to specifications. Reports grease spots, holes, and tears in cloth to operator of range. Disentangles tear-outs, rethreads unit, and sews torn cloth, using portable sewing machine. May mix chemicals or dyes. May test strength of chemical solutions by titration or with hydrometer. May be designated according to process as Cloth-Bleaching-Range Tender (textile); Cloth-Desizing-Range Tender (textile); Cloth-Dyeing-Range Tender (textile); Tire-Fabric-Impregnating-Range Tender (tex. prod., nec).
GOE: 06.04.16 STRENGTH: H GED: R3 M1 L2 SVP: 3 DLU: 77

589.685-030 DETACKER (knitting; textile)
Tends machine that removes tacking stitches from selvages of fabric and opens fabric to full width after wet processing: Clips tacking stitches with knife and ravels out length of stitching by hand. Feeds end of fabric over beating

roller and through takeoff rollers and *swing-folding attachment*. Laps end of raveled stitching around reel and starts machine that ravels out stitching and opens cloth to full width. Guides cloth from swing-folding attachment into handtruck. May sew end of cloth to end of cloth in machine to form continuous strip, using sewing machine.
GOE: 06.04.05 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-034 DRUMMER (hat & cap) alternate titles: softener
Tends revolving drum that tumbles fur pelts in moist sawdust and fuller's earth to soften pelts and clean fur used in making felt hats: Opens bales of skins, using knife or wirecutter. Shovels sawdust and fuller's earth into drum, pours water onto sawdust and fuller's earth, and stirs with shovel until sawdust and fuller's earth are saturated. Dumps skins into drum and starts drum revolving for specified time or until skins appear sufficiently clean and soft for further processing. May shake sawdust and fuller's earth from pelts [SHAKER (hat & cap)].
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-038 DRY CLEANER (knitting)
Tends cleaning machine and drier that clean and dry knitted garments: Examines garment for soil and determines type of soil. Lays garment on cleaning board with spotted surface exposed. Applies soap solvent to spot with brush and removes excess soap with towel. Opens valve to admit cleaning fluid to tank of washing machine. Lays spotted garment in machine and starts machine. Stops machine after specified time, and removes and places garment in drier. Removes garment from drier and hangs garment on hook in clothes room. Turns fan on in clothes room to drive cleaning fluid fumes from clothes. Removes garment from clothes room.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

589.685-042 DYER HELPER (hat & cap)
Tends equipment that bleaches and dries articles: Mixes bleaching solution, according to formula or instructions. Immerses material to be bleached in tub or vat containing solution and removes after specified time. Tends centrifugal extractor to remove excess bleach and dry articles [EXTRACTOR OPERATOR (any industry)].
GOE: 06.04.16 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

589.685-046 EDGE STAINER I (leather prod.)
Tends machine that applies decorative ink stain to edges of leather articles, such as coin purses and wallets: Fills reservoir of staining device and turns knob to activate flow of stain into nozzle. Places edge of article against nozzle and moves edge along nozzle for application of stain. Wipes smears from article, using rag and solvent. Places article on revolving table for drying.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

589.685-050 FEATHER MIXER (tex. prod., nec)
Tends mixing machine that mixes feathers for use in stuffing household goods, such as pillows, and cushions: Weighs specified amounts of various grades of feathers and dumps feathers into mixing machine. Attaches bags to discharge chutes of machine and starts pump which sucks blended feathers into bags. May mix feathers, using pitchfork. May sew tops of filled bags. May attach identifying tags.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

589.685-054 FEATHER SEPARATOR (tex. prod., nec)
Tends equipment that separates down from feathers and separates feathers according to quality: Dumps sacks of feathers of mixed grade into separator by hand. Turns wheels to adjust height of separator walls. Starts blower system to circulate feathers up and over separator walls, heavier or lower grades of which pass over first or lowest walls while lighter or premium grades pass over higher walls. Turns off blowers to allow feathers to settle to floor of bins and sweeps them into sacks. May add chemicals to separator during process to sterilize feathers. When operating machine to remove pin feathers or quills from down, may be designated Pin-Feather-Machine Operator (tex. prod., nec); Quill-Picking-Machine Operator (tex. prod., nec).
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 77

589.685-058 FOLDING-MACHINE OPERATOR (knitting; textile) alternate titles: dry folder, cloth; folder operator; layer-up
Tends machine that smooths and folds knitted tubing as tubing unwinds from rolls: Puts roll of tubing on turning rod of machine. Threads end of tubing over supporting rolls of machine, through steam rolls, and through feed rolls which pull tubing over spreader and through steam rolls. Turns crank to adjust height of folding table located under rolls. Starts machine and observes as tubing travels through rolls which move back and forth on carriage and deposit tubing in folds onto table. Removes folded tubing from table and places tubing in boxes. May weigh tubing and record weight.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

589.685-062 HAT FINISHER (hat & cap) alternate titles: body finisher
Tends machines that finish felt hat bodies, performing any combination of following tasks: Tends machine that buffs or sands hat bodies to smooth or polish surface [BUFFER (hat & cap); POUNCING-LATHE OPERATOR (hat & cap)]. Tends machine that applies grease and wax to hat body to finish and stiffen body [GREASER OPERATOR (hat & cap)]. Tends machine that trims brim to specified width [ROUNDING-MACHINE OPERATOR (hat & cap; tex. prod., nec)]. Rubs hat to remove surplus fur fibers and smooth surface of hat, using sandpaper. Rubs coloring powder onto hat bodies, using powder-filled cloth bag, or sprays powder onto hat with compressed-air gun. Presses hat brim to smooth and shape brim, using hand iron. May be designated according to part processed as Crown Finisher (hat & cap); or type of hat processed as Wool-Hat Finisher (hat & cap).
GOE: 06.04.16 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

589.685-066 LAUNDRY-MACHINE TENDER (tex. prod., nec)
Tends machines that bleach, dye, and dry bedspreads: Places bedspreads into paddle-dyeing machine and adds chemicals, such as caustic, soap, bleach, dye, and salt, at designated intervals during dyeing cycle to bleach and dye bedspreads. Places dyed bedspreads into ram or centrifugal extractor and starts extractor to remove excess water from spreads [EXTRACTOR OPERATOR (any industry)]. Places bedspreads into tumble drier and starts drier to dry and fluff spreads.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

589.685-070 MEASURING-MACHINE OPERATOR (leather mfg.) alternate titles: hide-measuring-machine operator; measurer
Tends machine that measures square footage of finished leather: Sets automatic counter at zero. Starts machine and feeds leather between rollers that carry it under measuring wheels connected to dial. Reads dial and chalks number of square feet onto surface of leather. May tie leather pieces into bundles for shipment.
GOE: 06.03.02 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-074 PLEATER (textile) alternate titles: bin piler; plaiter
Tends machine that guides cloth in *rope form* into storage bins or processing tanks in pleat-like folds to prevent tangling during subsequent removal: Threads cloth through poteyes, over rollers, through sleeve of pleating mechanism, and into bin or tank. Starts machine and turns knob to adjust pleating device so that cloth piles in even layers. May guide cloth with wooden stick or by hand. May sew ends of cloth together, using portable sewing machine. May be designated according to process as Sour-Bleaching Pleater (textile).
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-078 PULLER, MACHINE (leather mfg.)
Tends machine that stretches, softens, and cleans pelts: Places pelt on slanted board and depresses pedal to elevate board into contact with rotating roller. Holds and guides pelt under roller as machine stretches and softens pelt and removes undesired flesh from skin side.
GOE: 06.04.16 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-082 RENOVATOR-MACHINE OPERATOR (tex. prod., nec) alternate titles: feather renovator; sterilizer
Tends automatic machine that cleans, sterilizes, and dries feathers used to stuff cushions, and pillows: Dumps sacks of feathers on floor and removes foreign matter. Starts machine and loads feathers to be cleaned and sterilized with steam and dried with hot air into hopper of machine. Opens air valve to blow feathers into storage bins. May weigh specified amount of feathers prior to loading machine.
GOE: 06.04.19 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-086 ROLLING-DOWN-MACHINE OPERATOR (knitting; textile) alternate titles: pleating-machine operator; swing-folding-machine operator
Tends machine that unwinds cloth from rolls and discharges it into loose or folded form to facilitate further processing: Inserts metal rod through roll of cloth and lifts cloth into feeding position. Sews end of cloth roll to cloth in machine, using portable sewing machine. Positions truck under delivery roller or *swing-folding attachment* and starts machine. Pushes loaded trucks from area. May observe cloth to detect defective seams and resew seams to prevent raveling.
GOE: 06.04.05 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 77

589.685-090 SCUTCHER TENDER (textile) alternate titles: cloth opener, hand
Tends machine that opens cloth to full width after cloth is processed in *rope form*: Sews end of cloth to leader, using portable sewing machine, or threads cloth through guides and rollers, over beaters that revolve against direction of cloth to cause cloth to open and over scrimp rail that stretches and smooths cloth. Starts machine and observes cloth passing over beaters to ensure cloth is opened to full width. Scutcher is usually in tandem with other machines, such as vacuum extractor, mangle, or detacker.
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

589.685-094 SHAKER (hat & cap)
Tends shaker that removes sawdust from fur pelts that have been tumbled with sawdust in skin-softening drum: Places pelts in wire-mesh cylinder of shaker and starts machine. Removes skins after specified time or when sawdust has been removed and piles skins for processing of fur into felt hats.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-098 WRINGER-MACHINE OPERATOR (leather mfg.; tex. prod., nec) alternate titles: extractor operator; extract wringer; putter-out, machine; roll-press operator; setter, machine; striker-out, machine; wringer and setter
Tends machine that removes moisture or wrinkles from felt sheets or hides: Places material between rollers of machine and depresses pedal that rotates lower roller against upper roller to press moisture or smooth wrinkles from ma-

terial. Releases pedal to separate rollers and stop machine. Removes material from rollers and places material on cart. May move controls to adjust rollers according to thickness of material. May be designated according to section of leather processed as Belly Wringer (leather mfg.); Crop-Setting-Out-Machine Operator (leather mfg.); or according to type of leather processed as Blue-Leather Setter (leather mfg.); Colored-Leather Setter (leather mfg.). May sponge water on hides before rolling to ensure uniformity of moisture content and be designated Sponger (leather mfg.).
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.685-102 YARN-TEXTURING-MACHINE OPERATOR (plastic-synth.) alternate titles: crimping-machine operator

Tends machine that crimps thermoplastic yarn to increase bulk, add elasticity, and provide yarn with a soft hand: Places supply packages on spindles and threads yarn ends through guides, feed rolls, and into *crimping attachments*. Pulls yarn ends from stuffer boxes of crimping attachments, using wire hook, threads ends through guides, and attaches ends to takeup packages. Observes flow of yarn through machine to detect breaks in yarn and signal lights to detect variations in temperature of crimping attachments. Ties broken yarn ends by hand or with knotter and reports malfunction of machine to MACHINE FIXER (textile). Stops winding unit and doffs full package. May wrap yarn packages in paper and pack packages in shipping containers. Important variables may be indicated by trade name of yarn produced.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

589.686-010 BACK TENDER (textile) alternate titles: cloth drier; desizing-machine offbearer; drying-machine receiver; drying-machine tender; frame catcher; swing tender; take-away attendant; tentering-machine off-bearer

Off bears from delivery end of *range* or machine that dyes, finishes, washes, treats, or dries cloth or other textile goods: Observes as cloth winds onto rolls or passes through *swing-folding attachment* into trucks and notifies supervisor of obvious flaws. Measures cloth with ruler and feels cloth discharging from *drying cans or tenter frame* to verify that cloth meets specifications for width and dryness. Moves lever to lower blade that cuts cloth at seams or ravels seams connecting lengths to remove cloth from machine. Pushes roll of cloth onto platform or lifts roll from machine brackets, using hoist. Places *tube* on winding shaft and starts cloth winding on tube. Replaces filled truck at swing-folding attachment with empty truck to receive folded cloth. May wrap cloth roll with burlap. May regulate heat of drying cans and flow of water into washboxes by turning valves. May be designated according to type of machine as Cloth-Bleaching-Range Back-Tender (textile); Cloth-Finishing-Range Back-Tender (textile); Cloth-Washer Back-Tender (textile); Drying-Machine Back-Tender (knitting; textile); Dyeing-Machine Back-Tender (textile); Tenter-Frame Back-Tender (textile). May be designated: Cloth-Mercerizer Back-Tender (textile); Desizing-Machine Back-Tender (textile); Dry-Cans Back-Tender (textile); Mangle Back-Tender (textile); Mangle Catcher (textile); Singer Back-Tender (textile); Soaping-Machine Back-Tender (textile); Tire-Fabric-Impregnating-Range Back-Tender (tex. prod., nec); White-Washer Piler (textile).
GOE: 06.04.16 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

589.686-014 CLOTH FEEDER (textile) alternate titles: range feeder

Feeds cloth into any of various textile finishing machines: Aligns trucks or rolls of cloth to be processed through machine according to priority, style, and width. Positions truck of cloth at feed end of machine or mounts roll of cloth onto brackets at scray. Sews end of cloth to leader, using portable sewing machine. Straightens cloth as it enters machine. May assist machine operator to thread cloth through machine. May be designated according to machine fed as Finishing-Range Feeder (textile); Mercerizing-Range Feeder (textile); Tenter-Frame Feeder (textile).
GOE: 06.04.16 STRENGTH: H GED: R1 M1 L1 SVP: 2 DLU: 77

589.686-018 FEATHER-CURLING-MACHINE OPERATOR (tex. prod., nec) alternate titles: crushing-mill operator; feather-crushing-machine operator

Feeds feathers, used to stuff cushions, and pillows, into hopper of machine that curls (crushes) feathers to prevent quills from protruding through ticking of finished product.
GOE: 06.04.09 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

589.686-022 FUR-FLOOR WORKER (leather mfg.) alternate titles: floorworker

Cleans and dresses pelts, performing any combination of following tasks: Cuts pelts on belly side from neck to tail with knife to facilitate further handling. Feeds pelts into cylinder of combing machine that untangles hair. Loads, starts, stops, and unloads *beating machine* to remove loose hair and foreign matter from pelts. Brushes grease onto skin side of pelts to restore oils removed in dyeing and tanning processes, or loads pelts and grease into revolving drum for specified time. Loads pelts and sawdust into revolving drum to tumble pelts in sawdust to dry, clean, and soften them. Stops drum after specified interval and transfers pelts to revolving cage to remove sawdust from pelts. Pulls skin of pelt back and forth over edge of metal bar, or slips uncut pelt over tongue of spreading device to stretch, open pores, and soften skin of pelt. Trims furs with scissors to even length of hairs. May be designated according to specialized task performed or machine tended as Beating-Machine Operator (leather mfg.); Comber (leather mfg.); Cutter (leather mfg.); Drummer (leather mfg.); Fur Clipper (leather mfg.); Fur Puller (leather mfg.); Fur Stretcher (leather mfg.); Greaser (leather mfg.).
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.686-026 LABORER, GENERAL (leather mfg.) alternate titles: blue-line hanger; cellar hand; department helper; roustabout; toggler

Performs any combination of following duties in various sections of tannery, such as drying department, beam house, hide house, or tan house: Cuts cord from hide bundles and spreads hides on floor for processing. Dumps tannery refuse, such as skin and fat, in bin and covers refuse with lime to prevent putrefaction. Covers fleshy side of hides with lime solution to prevent putrefaction of hides. Applies solvent to wool of sheepskin to remove painted brands, using rag and brush. Hangs hides in steam room and turns valve to admit steam that loosens hair and wool on hides. Moves steamed hides to dehairing machine or manually pulls loosened wool from hides. Collects hair after dehairing operation and dumps hair into washing machine. Shovels washed hair into centrifugal drier or onto screen over steam coils to remove moisture. Punches holes in hides, using awl or punch press, to facilitate tying hides into bundles for tanning. Counts and ties specified number of hides into bundles. Dumps hides into drums or vats containing various chemical solutions that dehair, delime, or preserve hides. Dampens hides with water in preparation for oiling. Pastes or clips wet hides on frames to prevent wrinkling and slides frames into drying tunnel. Removes dry hides from frames and stacks hides on cart. Feeds and off bears machines that clean and smooth finished hides by pressing, brushing, or vacuuming. Cleans vats, tanks, and drums of lime, tanbark, and refuse and scrubs walls and floors of tannery, using brushes, scrapers, and solvents. Sprays disinfectant in trucks or freight cars used to haul hides to tannery. May be assigned to specific section of tannery and be designated Laborer, Beam House (leather mfg.); Laborer, Drying Department (leather mfg.); Laborer, Hide House (leather mfg.); Laborer, Tan House (leather mfg.).
GOE: 06.04.27 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

589.686-030 OPENER II (hat & cap)

Feeds rabbit skins under revolving cutting wheel of machine that slits pelt along belly, opening skin for further processing into hatters' fur. May cut off ears, tail, and feet of rabbit, using knife.
GOE: 06.04.16 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

589.686-034 PACKAGE CRIMPER (textile) alternate titles: crimping-machine operator

Feeds machine that rounds edges of thread packages so that dye will penetrate thread uniformly.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.686-038 RUG-INSPECTOR HELPER (tex. prod., nec)

Assists RUG INSPECTOR (tex. prod., nec) in examination of felt rug pads: Examines felt and points out imperfections. Straightens material to ensure even rewinding. Helps lift finished roll to wrapping machine. Places pipe or bar in winding rack, and starts new roll of padding. Helps RUG INSPECTOR (tex. prod., nec) cut material to specified length. Performs other duties as described under HELPER (any industry) Master Title.
GOE: 06.03.02 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.686-042 SOCK BOARDER (knitting) alternate titles: boarder, hand; boarder; boarder, steam; boarder tender

Feeds and off bears *boarding II* equipment that shapes and dries knitted socks: Pulls socks over leg-shaped boarding forms, aligns toe and heel with form, and smooths out wrinkles in leg. Strips shaped socks from forms and stacks socks on tray for further processing. May turn valves to increase or decrease steam pressure and temperature of boarding forms according to type of socks being boarded.
GOE: 06.04.16 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

589.686-046 TAKER-OFF, HEMP FIBER (tex. prod., nec) alternate titles: taker-off

Removes hemp fibers from conveyor of machines that dry or scutch fibers: Places hemp on table or another conveyor, or coils hemp for next operation. May be designated according to type of machine from which hemp is removed as Taker-Off, Braker Machine (tex. prod., nec); Taker-Off, Drying Kiln (tex. prod., nec); Taker-Off, Scutcher Machine (tex. prod., nec).
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

589.686-050 TOBACCO-CLOTH RECLAIMER (tex. prod., nec)

Feeds or off bears machine that vacuums foreign matter from reclaimed tobacco cloth (cheesecloth) and cuts cloth into specified lengths for use as disposable wiping rags: Pushes bales of cloth into feeding position and places end of cloth on roller conveyor that conveys cloth through machine. Removes cut lengths of cloth from delivery end of machine and ties lengths into bundles. Deposits bundles in container.
GOE: 06.04.05 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

589.687-010 CAKE WRAPPER (plastic-synth.)

Wraps cakes of rayon yarn in cloth to protect threads during steaming, washing, and drying processes. May perform duties of WASHER (plastic-synth.).
GOE: 06.04.38 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.687-014 CLOTH FOLDER, HAND (tex. prod., nec; textile) alternate titles: book folder; folder, hand; hand-booked folder and stitcher; maker-up, folding

Folds cloth by hand to facilitate wrapping, packing, or further processing: Unreels cloth from bolt onto table. Examines cloth for defects, such as faulty

dyeing, printing, or finishing. Folds fabric into halves, aligns edges, and matches pattern of fabric. Laps cloth at specified intervals to fold into pile. Binds folded cloth, using rope. Records lot number and disposition of goods folded on production sheet. May trim ends of cloth, using scissors. May staple or pin edges of cloth together. May work as member of team to fold broad woven goods. May be designated according to goods folded as Bedspread Folder (tex. prod., nec); Blanket Folder (tex. prod., nec); Dishcloth Folder (tex. prod., nec); Pillowcase Folder (tex. prod., nec); Sheet Folder (tex. prod., nec); Towel Folder (tex. prod., nec); Washcloth Folder (tex. prod., nec).
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

589.687-018 DIPPER (knitting; textile)
Fills machine trough with adhesive for use in laminating cloth: Pushes barrel of adhesive from storage area to machine, using handtruck. Positions barrel on platform and places tray between barrel and trough. Dips adhesive into tray to maintain adequate supply in trough for laminating process.
GOE: 06.04.27 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.687-022 FABRIC-LAY-OUT WORKER (textile)
Lays out and folds bolts of fabrics, such as silk and rayon, preparatory to moire processing, dyeing, and other processing: Determines if cloth should be folded by hand or machine, according to type of processing to be done or specifications, and lays aside bolts to be folded by machine. Folds remaining bolts end-to-end as specified. Records data, such as customer's number, lot number, piece number, yardage, date, color, style, and process specified, for each bolt. May fold finished bolts of fabrics.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

589.687-026 LABORER, GENERAL (tex. prod., nec)
Performs any combination of following duties in manufacture of coated fabrics: Measures width of rolls of material, identifies rolls with color code card, and weighs rolls before and after coating processes. Conveys rolls of material, engraved printing or embossing rolls, and drums of daub and print color to and from machine, using dollies. Lifts rolls to *letoff rack* and *windup racks*, using hoist. Joins ends of material rolls with automatic sewing machine or tape. Observes material at windup rack and notifies operator of processing defects. Starts rolls onto core, changes knives, and threads material into machine. Scrapes and cleans equipment, removes scrap, and sweeps area. Keeps supply of rags and roll cores. May be designated according to operators assisted as Calender-Operator Helper (tex. prod., nec); Cloth-Printing-Machine-Operator Helper (tex. prod., nec); Coating-Machine-Operator Helper (tex. prod., nec); Embossing-Machine-Operator Helper (tex. prod., nec); Winding-Rack-Operator Helper (tex. prod., nec).
GOE: 06.04.05 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

589.687-030 PAD MAKER (textile) alternate titles: padder
Prepares sample pads of textile fibers by hand for use in comparing textile batch color with standard: Cards fibers received from dyeing process, using brush, and dries fibers in oven. Weighs dried fibers, mats specified weight into pads, and washes and dries pads. Cuts excess fibers from pads, using scissors. Attaches identification tags to pads. May blend different colored fibers to determine quantity of each color required to make specified shade.
GOE: 06.04.27 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

589.687-034 STAINER (leather prod.) alternate titles: applier; color finisher; smearer
Applies liquid dye or stain to leather articles, such as belts, gloves, and pocketbooks, to cover blemishes and color edges, gussets, and seams of assembled articles, using brushes, daubers, and swabs.
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

589.687-038 STIFFENER (hat & cap) alternate titles: dipper; machine sizer; sizer; sizing brusher; sizing sponger; smearer; spray-gun sizer
Applies sizing solution, such as gelatin, glue, lacquer, paint, or shellac to hat or hat parts to stiffen, waterproof, or impart finish to hat: Pours premixed solutions into container or thins solution, following work order specifications. Applies solution to hat or hat parts by any combination of following tasks. Brushes or sponges solution onto articles; dips articles into tub of solution; sprays solution onto article, using spray gun; inserts parts between solution-coated rollers of machine. Places articles on holder of machine that spins articles to remove surplus liquid. Hangs articles on pegs or on holders of conveyor belt that carries articles through drying room to complete drying and stiffening operation. May be designated according to hat or hat part stiffened as Brim Stiffener (hat & cap); Panama-Hat Smearer (hat & cap); Strawhat Sizer (hat & cap); or according to solution used in sizing article as Lacquer Sizer (hat & cap); Varnisher (hat & cap). When reapplying sizing solution to article to cover thin spots in original coating, may be known as Retouching Operator (hat & cap).
GOE: 06.04.27 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 78

589.687-042 TUBE CLEANER (textile)
Removes cloth covers from dye tubes or springs to prepare tubes for reuse: Cuts cover with knife or holds tube against revolving emery wheel. Pulls cover from tube by hand.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

589.687-046 TUBE COVERER (textile)
Covers dye tubes with cloth tubing to prevent yarn damage during dyeing process: Mounts tubes on prongs of covering device and slides tubing over tubes. Removes tubes from device and tucks excess tubing into ends of tubes. Sorts defective dye tubes for repair or disposal. May cut tubing into specified lengths, using electric cutting wheel.
GOE: 06.04.27 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

589.687-050 WOOL PULLER (leather mfg.; meat products)
Removes wool from sheep pelts and sorts wool into bins: Holds pelt against angled table and pulls wool from pelt. Examines and grades wool according to color, texture, and length. Places wool in designated containers. Scrapes remaining wool from pelt, using scraping stick. Cuts off brand marks and wool around head and feet with shears. Places stripped pelts on racks or truck. May grade pelts before pulling.
GOE: 06.03.02 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

589.687-054 WOOL-FLEECE GRADER (agriculture)
Examines and sorts wool fleece according to quality: Lifts unprocessed fleece to estimate approximate weight of fleece after processing. Separates locks of fleece and examines fibers for length, diameter, elasticity, and color to determine quality of fleece. Examines fleece and separates locks to determine presence of dirt, manure, straw, stains, and moisture. Separates and places fleece in containers and marks wool grade on container according to government standards for quality.
GOE: 06.03.02 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 77

589.687-058 SHAKER (knitting)
Shakes out, aligns, and folds surgical hose following wet processing to prepare hose for wrinkle-free drying in hot house: Empties bag of hose on worktable, unrolls bundle of hose, and extends hose on worktable. Pulls and aligns heels, toes, and toe openings of hose, and lifts, extends, and smooths hose to dewrinkle and flatten edges and folds of hose legs. Lifts and shakes hose of specified styles, and slaps thigh pouches of hose against front edge of worktable to dewrinkle hose. Turns and straightens elastic welts inserted during bundling, bagging, or wet processing. Opens and flattens panel seams to prepare hose for drying in conformity with quality standards. Stacks specified quantity of hose on storage tray, and completes and attaches work ticket to tray. Shakes, aligns, and folds leotards to prevent setting of wrinkles. Stores irregular hose or panty hose in specified storage areas. Inspects, mends, or pairs hose or panty hose, following processing specifications.
GOE: 06.04.35 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 86

589.687-062 DYE-STAND LOADER (textile) alternate titles: carrier loader; package-dye-stand loader
Stacks yarn packages on spindles of dye stand, preparatory to dyeing in *package-dyeing machine*. Screws cap on top of each spindle to secure packages during dyeing. Loads dye stands, or beams when yarn is wound on beams, into machine, using power hoist. Closes and bolts machine lid, using wrench. Removes dyed yarn from machine and positions dye-stand in storage or holding area prior to unloading dye stand, using power hoist. Records weight of loaded dye stands or beams. May use compressing device to load dye stand. May feel packages to determine dryness prior to unloading dye stand.
GOE: 06.04.16 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 80

59 PROCESSING OCCUPATIONS, N.E.C.

This division includes occupations, not elsewhere classified, concerned with processing materials and products.

590 OCCUPATIONS IN PROCESSING PRODUCTS FROM ASSORTED MATERIALS

This group includes occupations concerned with producing singular products by means of mixing, heating, saturating, distilling, melting, and similarly working two or more different materials.

590.130-010 SUPERVISOR, ELECTRONICS PROCESSING (electron. comp.)
Supervises and coordinates activities of workers engaged in processing electronic components and parts, such as printed circuit boards (PCB's), electron tubes, and semiconductor devices: Examines product for conformance to specifications and quality standards, applying knowledge of manufacturing processes. Demonstrates methods and trains workers in sequence of processing tasks and operation and control of machines and equipment. Maintains records and prepares cost, yield, breakage, and maintenance reports, manually or using computer terminal. Inventories and requisitions tools, equipment, and supplies for department activities. Performs other tasks as described under SUPERVISOR (any industry) Master Title. May perform tasks of subordinates, such as machine and equipment setup, adjustment, and repair. May be designated according to product or department as Supervisor, Capacitor Processing (electron. comp.); Supervisor, Electron Tube Processing (electron. comp.); Supervisor, Integrated Circuit Manufacturing (electron. comp.); Supervisor, Printed Circuit Board Processing (electron. comp.); Supervisor, Process Testing (electron. comp.); Supervisor, Semiconductor Wafer Manufacturing (electron. comp.).
GOE: 06.01.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 88

590.130-014 SUPERVISOR, INSULATION (nonmet. min.)
Supervises and coordinates activities of workers engaged in melting, and spinning slag and flux into mineral wool for use in forming granulated wool,

batts, and felts. Repairs and adjusts malfunctioning machines and equipment, using handtools. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L4 SVP: 8 DLU: 77

590.130-018 SUPERVISOR, ROOFING PLANT (build. mat., nec)
Supervises and coordinates activities of workers engaged in saturating, coating, and winding roofing felt to fabricate composition shingles and roll roofing. Assists workers with faulty equipment. Sets up machines for workers. Performs other duties as described under SUPERVISOR (any industry) Master Title. May be designated according to unit or function as Shingle-Machine Supervisor (build. mat., nec).
GOE: 06.02.01 STRENGTH: M GED: R4 M3 L4 SVP: 7 DLU: 77

590.131-010 PORCELAIN-ENAMELING SUPERVISOR (any industry)
Supervises and coordinates activities of workers engaged in preparing and applying porcelain enamel to surface of products, such as electric washers, refrigerators, and automobile mufflers, applying knowledge of metal pickling, pulverizing and mixing of porcelain ingredients, and application, drying, and baking of porcelain enamel: Computes amount of ingredients required to obtain porcelain mixtures of specified color and consistency, following standard formulas. Examines pickled surface of product and orders changes in pickling solution to ensure suitability of surface for porcelainizing. Inspects finished product and moves controls to regulate furnace temperatures and conveyor speeds to ensure fusion of porcelain finish. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

590.132-010 SUPERVISOR, CANDLE MAKING (fabrication, nec)
Supervises and coordinates activities of workers engaged in dipping, molding, cutting, and packing candles: Verifies percentage of specified ingredients used to blend molten wax, using plant standards or customer's specifications. Observes molten wax to detect irregularities in color and consistency. Trains workers in machine operation. Requisitions materials. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

590.134-010 SUPERVISOR, PIPE JOINTS (brick & tile)
Supervises and coordinates activities of workers engaged in molding plastic seal joints on ends of clay sewer pipes: Inspects finished work for conformance to specifications. Trains workers in performance of duties, such as pouring sealants into molds and trimming excess materials from joints. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.02 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 77

590.262-010 CRYSTAL GROWING TECHNICIAN (electron. comp.)
Analyzes processing procedures and equipment functions to identify and resolve problems in growing semiconductor crystals, utilizing knowledge of crystal growing, and trains other workers to grow crystals: Observes furnace operation and crystal growth and reads logbook entries to identify deviations from specifications and procedures, and advises CRYSTAL GROWER (electron. comp.) 590.382-014 on techniques to adjust furnace controls to alter crystal growth to meet company specifications. Demonstrates and explains crystal growing procedures to train CRYSTAL GROWER (electron. comp.) and to improve worker's crystal growing techniques. Inspects furnaces for gas leaks, diagnoses equipment malfunctions, and requests equipment repairs. Sets up and operates furnaces in absence of CRYSTAL GROWER (electron. comp.).
GOE: 06.02.18 STRENGTH: M GED: R4 M3 L3 SVP: 6 DLU: 86

590.262-014 TEST TECHNICIAN, SEMICONDUCTOR PROCESSING EQUIPMENT (electron. comp.)
Operates machines and equipment used in production of semiconductor wafers, such as alignment equipment, automatic developer, and diffusion furnaces, and tests processed wafers to evaluate performance of machines and equipment: Operates machines and equipment to process test wafer. Inspects and measures test wafer, using electronic measuring equipment and microscope, to determine that machines and equipment are processing wafers according to company specifications. Records test results in logbooks. Discusses production problems with workers. Analyzes test results, using engineering specifications and calculator, and writes report on equipment repair or re-calibration recommendations and on operator procedure violations.
GOE: 06.01.05 STRENGTH: L GED: R4 M3 L4 SVP: 7 DLU: 86

590.282-010 EPITAXIAL REACTOR TECHNICIAN (electron. comp.)
Sets up and operates computer-controlled epitaxial reactor to grow layer of semiconductor material on wafer surface, following written specifications: Removes semiconductor wafers from tray, using vacuum wand, and cleans wafers, using blow-off wand. Positions wafers on carousel and aligns carousel on baseplate of reactor. Enters processing data into computer to start rotation of baseplate and to activate vacuum pump and epitaxial growth process program. Observes display screen to monitor epitaxial growth process. Inspects wafers for defects, such as scratches, growths, and pits, and calculates defects per square inch, using calculator. Measures thickness and bow (warp) of wafer and thickness and photo-luminescence of epitaxial layer, using gauges and test equipment. Calculates surface area of wafer surface, using calculator. Inscribes line on wafer, using metal scribe, and breaks off section (light bar sample) of wafer. Cuts line on light bar sample to isolate *die*, using wafer saw, and measures brightness of die, using probe tester. Constructs sheet metal housing and installs and repairs electrical wiring, water and gas lines, switches, and gauges on reactor following oral instructions, blueprints, and specifications, using handtools and power tools. Checks replacement gas cylinder for leaks before installing on reactor, using leak detector. Connects reactor to computer, using handtools and power tools. Enters information into computer, using keyboard, to activate program to clean reactor, and cleans and replaces reactor accessories, such as bell jar and carousel. Maintains production records.
GOE: 06.02.18 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 88

590.362-010 FORMING-PROCESS WORKER (elec. equip.) alternate titles: process attendant
Controls generating equipment and maintains specific gravity of acid to form (treat) and charge battery plates and cells, and inspects activities of workers at each station along line: Reads meters on generator and moves controls to adjust voltage and amperage to specified levels. Observes generator brushes to detect arcing and adjusts brushes, using handtools. Inspects polarity arrangement of batteries on forming trucks to ensure conformance to instructions. Ascertains charging rate of batteries periodically, using voltmeter. Turns valves to drain specified amounts of acid and water into mixing tank and ascertains specific gravity of solution, using hydrometer and thermometer. Adds water or acid to obtain specified concentration. Observes activities of workers filling cells with acid, stacking batteries on forming trucks, attaching and stripping connectors, treating (forming) plates, dumping acid from batteries, washing and drying plates, testing elements, inserting elements in containers (battery boxes) and charging batteries, and reports deviations to supervisor.
GOE: 06.02.11 STRENGTH: L GED: R3 M3 L3 SVP: 5 DLU: 77

590.362-014 IMPREGNATING-MACHINE OPERATOR (metal prod., nec) alternate titles: asphalt-machine operator
Sets up and operates machine to saturate wire-reinforced paper, used as plaster lath, with oil, wax, or asphalt: Loads wire-reinforced paper roll onto unreeling stand, using power hoist or crane. Threads paper through saturating rolls of machine and drier rollers and attaches end of paper to rewinding reel. Fills machine tank with saturating liquid, using monorail crane. Adjusts valves of gas burners and turns setscrews to regulate steam pressure, temperature, and flow of impregnating liquid. Starts machine and regulates pressure of saturating roll, rumbler rolls, speed of machine feed, and tension of rewinder, using handtools. Removes treated paper roll from rewinder, using power hoist. Seals paper roll, using gummed tape.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

590.362-018 GROUP LEADER, SEMICONDUCTOR PROCESSING (electron. comp.) alternate titles: production aide
Assists SUPERVISOR, ELECTRONICS PROCESSING (electron. comp.) 590.130-010 in coordinating and monitoring activities of workers engaged in fabricating electronic devices (components), such as integrated circuits, transistors, and diodes, on semiconductor wafers, utilizing knowledge of semiconductor processing equipment and processing procedures: Receives and answers questions from workers pertaining to production processes or equipment operation. Monitors and expedites flow of materials within production area. Notifies maintenance workers of equipment malfunctions. Tends or operates machines or equipment on production line to substitute for absentee workers. Maintains product workflow records. Trains workers in equipment operation and in processing and safety procedures. May inspect processed wafers, using microscope, to detect processing defects.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L2 SVP: 7 DLU: 86

590.362-022 MICROELECTRONICS TECHNICIAN (electron. comp.)
Operates variety of semiconductor processing, testing, and assembly equipment to assist engineering staff in development and fabrication of prototype, custom-designed, electronic circuitry chips in research laberatory, using knowledge of microelectronic processing equipment, procedures, and specifications: Operates equipment to convert integrated circuit layout designs into working photo masks; clean, coat, bake, align, expose, develop, and cure photoresist on wafers; grow layers of dielectric, metal, and semiconductor material on masked areas of wafers; clean, etch, or remove materials on areas not covered by photoresist; and implant chemicals to selective areas of wafer substrate to alter substrate electrical characteristics. Operates various test equipment to verify product conformance to processing and company specifications. Operates equipment to assemble, dice, clean, mount, bond, and package integrated circuit devices. May perform some assembly and packaging operations manually. May assist in interpretation and evaluation of processing data and in preparation of related reports. May assist in technical writing of semiconductor processing specifications.
GOE: 06.01.03 STRENGTH: L GED: R4 M4 L3 SVP: 6 DLU: 86

590.364-010 LEAD WORKER, WAFER PRODUCTION (electron. comp.)
Assists supervisor in coordinating activities of workers engaged in abrading, cleaning, etching, heattreating, testing, inspecting, sawing, and other processes in manufacturing semiconductor wafers, utilizing knowledge of equipment, procedures, and specifications for wafer manufacture: Assigns workers to work stations to meet production requirements. Interprets process specifications for workers. Monitors production and adjusts work assignments, supply of material, and machine operation when necessary. Transports materials between production and storage areas. Repairs various machines, using handtools and power tools. Refers extensive machine repairs to maintenance personnel. Confers with supervisor to receive instructions and exchange production information. Tests

random samples of silicon wafers, using various test equipment, to verify wafers meet specifications. Periodically recalibrates test equipment. Trains workers in equipment operation. May perform duties of absent workers to maintain production.
GOE: 06.02.01 STRENGTH: M GED: R3 M2 L3 SVP: 6 DLU: 86

590.365-010 IRON-PLASTIC BULLET MAKER (ordnance)
Tends machines that mix, mold, and bake iron powder and plastic to form spatterless bullets for small arms ammunition: Measures, weighs, and pours specified quantities of iron powder, plastic crystals, and solvent into steam-heated mixing machine to coat each particle of iron powder with adhesive plastic. Starts machine. Observes dials, indicators, and gauges, and turns valves to regulate and maintain prescribed heat and pressure during designated mixing period. Opens hatch in mixer bottom to dump dried, coated iron powder onto shaker screen that removes clinkers. Signals INDUSTRIAL-TRUCK OPERATOR (any industry) 921.683-050 to move cans of sifted powder and to lift them to platform above bullet molding press. Scoops powder from can and sifts it through screen to remove oversize particles and to fill hopper of bullet molding machine. Starts machine that compresses iron powder in molds to form bullets. Examines bullets for malformation and replaces worn punches and dies, using handtools. Regulates conveyor speed and electric oven temperature by pressing buttons and switches to bake and cool bullets. Measures sample bullets, using dial indicator and fixed gauges. Tests samples for hardness, using special device that measures force required to break off bullet nose. Rebakes rejected bullets to reduce diameter or increase hardness to meet specifications.
GOE: 06.04.10 STRENGTH: H GED: R3 M2 L3 SVP: 3 DLU: 77

590.367-010 INSPECTOR II (fabrication, nec)
Inspects hard-surface floor covering for pattern and color defects and grades it according to quality: Participates as crewmember to mount roll of finished floor covering on unwind stand. Signals ROLL-UP-GUIDER OPERATOR (fabrication, nec) 590.685-050 to start machine that pulls hard surface floor covering across cutting table. Examines material for flaws as it unwinds onto table. Marks defective areas with tape or cuts flag into material, depending upon length of defective area. Signals ROLL-UP-GUIDER OPERATOR (fabrication, nec) to cut defective sections from acceptable material. Resets counter after each split. Grades floor covering, based on knowledge of company standards. Removes sample of material for laboratory test. May measure thickness of materials to ensure compliance with specifications, using micrometer or snap gauge. May be designated according to floor covering inspected as Rug Inspector (fabrication, nec); Tile Inspector (fabrication, nec); Wide-Piece-Goods Inspector (fabrication, nec).
GOE: 06.03.01 STRENGTH: L GED: R3 M2 L2 SVP: 5 DLU: 77

590.382-010 OPERATOR, AUTOMATED PROCESS (electron. comp.)
Operates mechanical units of automated production machinery to produce deposited carbon resistors for use in electronic equipment: Turns valves to admit methane and nitrogen gases into carbon-coating furnace and sets furnace temperature for computer control according to work order. Presses buttons and turns valves to start vacuum pump of terminating chambers and set rate for back-filling chambers with argon gas, preparatory to *sputtering* gold contacts on carbonized ceramic cores. Sets thermostats to heat curing oven of encapsulating machine and water vat of air-leak detection unit to specified temperatures. Turns valve to spray water over resistors emerging from curing oven. Observes temperature gauges, pressure gauges, and machine operation to detect mechanical failures in automated machinery. Notifies MAINTENANCE MECHANIC (any industry) 638.281-014 of machinery malfunction.
GOE: 06.02.18 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 87

590.382-014 CRYSTAL GROWER (comm. equip.; electron. comp.) alternate titles: crystal growing furnace operator
Sets up and operates furnaces to grow semiconductor crystals from materials, such as silicon, quartz, or gallium arsenide: Loads furnace with seed crystal, dopant, and crystal growing materials, such as polysilicon, quartz, gallium arsenide, or *remelt*. Reads work order and adjusts furnace controls to regulate operating conditions, such as power level, temperature, vacuum, and rotation speed, according to crystal growing specifications. Monitors meltdown of growing material and crystal growth, and adjusts furnace controls. Shuts down furnace and unloads crystal ingot after cooling. May clean inside furnace, using vacuum cleaner and cleaning supplies, and replace furnace liner and other parts. May weigh and crop crystal ingot, slice sample wafer, measure and test ingot for resistivity, and determine *crystal orientation* [INSPECTOR, CRYSTAL (electron. comp.) 726.684-054]. May operate computer controls to regulate furnace conditions.
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 86

590.382-018 EPITAXIAL REACTOR OPERATOR (electron. comp.)
Controls and monitors operation of epitaxial reactor to deposit layer of semiconductor material, such as gallium arsenide or silicon, onto semiconductor wafer surface in production of electronic components, such as transistors, diodes, and integrated circuits, and tests sample processed wafers to evaluate epitaxial layer properties, such as thickness and resistivity, using testing equipment: Cleans semiconductor wafers, using cleaning equipment such as chemical baths and automatic wafer cleaners, to prepare wafers for deposit of epitaxial layer. Places wafers on wafer holder (suspector), using tweezers or vacuum wand, to load reactor. Pushes buttons, flips switches, turns dials, and observes gauges to set and adjust reactor temperature and gas pressure to specified levels and to start reactor cycle. Monitors temperature and gas gauges during processing cycle and turns dials to adjust temperature and gas levels. Tests epitaxial layer on wafers, using testing equipment, to evaluate thickness and resistivity of layer. Records production data in logbook and processing documents. Cleans and maintains equipment and work area. May compute production statistics, using calculator.
GOE: 06.02.18 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 86

590.382-022 ION IMPLANT MACHINE OPERATOR (electron. comp.)
Operates ion implanting machine to implant semiconductor wafers with gases, such as arsenic, boron, or phosphorus, to implant electrical properties in wafers: Turns valves, flips switches, and presses buttons to start and regulate flow of gases into implant machine. Places semiconductor wafers in holders, such as carousel, wheels, or *boats*, using tweezers. Places loaded holder in machine and secures clamps. Presses buttons to start feeding and implanting process. Monitors gas gauges and meters and turns dials to adjust gases, following specifications, if required. Maintains processing reports. May test semiconductor wafers, using test equipment, to verify that voltage, current, and resistivity of implantation meet company specifications.
GOE: 06.02.18 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 86

590.384-010 CHARGE PREPARATION TECHNICIAN (electron. comp.)
Prepares ampoule containing charge (specified amounts of materials for crystal growing process) to grow gallium arsenide crystal ingot in crystal growing furnace: Cleans ampoules, plugs, and *boats*, using etch tanks and sandblasting equipment. Operates saw to cut *remelt* into sections of specified size. Immerses remelt into etch tank to remove contaminants, and dries remelt in oven. Measures and weighs specified amounts of crystal growing material, such as seed, seed powder, remelt, and dopant, and loads material into boat and ampoule, following prescribed procedure. Attaches ampoule to diffusion pump to remove air from ampoule, and seals ampoule, using blowtorch. Transports sealed ampoule to holding rack in furnace room for further processing by CRYSTAL GROWER (electron. comp.) 590.382-014. Records production information.
GOE: 06.02.32 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 86

590.384-014 PRODUCTION TECHNICIAN, SEMICONDUCTOR PROCESSING EQUIPMENT (electron. comp.)
Cleans and maintains wafer processing machines and equipment and mixes chemical solutions, following production specifications: Reads work orders and specifications to determine machines and equipment requiring replenishment of chemical solutions. Measures and mixes chemical solutions, using graduated beakers and funnels. Pours chemical solutions into wafer processing machine tanks to replenish machine supplies. Cleans furnace accessories, such as quartz tubes and stainless steel tubing, using chemical solutions. Removes broken quartzware and wafers from furnace and vacuums interior of furnace. Cleans processing machines and equipment, using cleaning solvent and cloth. Removes and replaces empty machine and equipment gas tanks. Measures furnace temperatures, using thermal rod or thermocouple, and turns knobs on furnace control panel to adjust temperature. May re-stock storage shelves and work station with supplies, such as chemicals, alcohol, and rubber gloves. May maintain log records of machine and equipment processing readings.
GOE: 05.09.01 STRENGTH: V GED: R3 M2 L2 SVP: 5 DLU: 86

590.464-010 PROCESSOR, SOLID PROPELLANT (chemical) alternate titles: chemical operator; process operator
Performs combination of following duties to produce solid-propellant rocket fuel, prepare rocket motor cases for inserting propellant, cast and cure propellant, install propellant and ignition components in motor case, prepare assembly for static testing, and pack assembly for shipment: Blends fuel ingredients and tends roller mill that grinds mixture to uniform consistency from remote control instrument panel, viewing operations on television monitor. Lowers motor case into degreasing pit filled with solvent, using hoist. Transfers case to sandblasting cabinet and starts compressor to sandblast unit, removing rust and scale. Paints motor case, using spray gun. Weighs out prescribed ingredients for insulating interior of case and starts agitator in mixing tank to blend ingredients to desired consistency. Sprays insulating liner onto case interior, using spray gun. Hoists case into oven to cure lining preparatory to inserting propellant. Fills fuel transfer can with propellant mixture, according to prescribed safety procedures, bolts lid onto can, and starts vibrator to remove air bubbles from mixture. Transfers filled can to casting area, using lift truck. Brushes mold-releasing lubricant onto casting core to facilitate removal of propellant after curing. Positions motor case in rack or pit and aligns casting core in case, using gauge and following markings on case interior. Couples safety hose to valve in lid of transfer can and turns air valves to force propellant into case. Bolts hydraulic jack to retainer ring of case and turns valve from behind safety barrier to force core into position, using system of mirrors to regulate movement of core. Slips plastic bag and metal cap over assembly and transfers filled case to curing oven. Sets automatic temperature controls of oven according to critical specifications for each type of propellant and size of motor. Removes casting core from propellant after prescribed curing time, using hydraulic jack, and trims excess propellant from rim of case, using remote controlled air-powered knives. Secures retaining collars, exhaust nozzle, ignition cable, and igniter motor in motor case, using torque and impact wrenches, to ensure alignment of all components. Hoists motor onto cradle of scale and records weight. Determines center of gravity of assembly, using centering devices and standard formula. Stencils identity and motor specifications on case, using stencil and roller. Prepares assemblies for static testing by transferring units to and from tem-

perature-controlled rooms, securing them to test stand, recording test instrument readings, and disassembling faulty units for inspection. Slides completed assemblies into pressurized shipping containers, using hoist and aligning devices to prevent damage during shipment. Seals container, using gaskets, bolts, tape, resilient packing, and moisture-absorbing agents. May be known as Mold-Release Worker (chemical); Rocket-Assembly Operator (chemical). When casting smaller fuel elements in molds to produce free-standing grain (fuel element), wrapping grain in inhibitor sheath to control rate of burning, and manually loading grain into motor case or container, is designated Technical Operator, Grain Preparation (chemical).
GOE: 06.02.32 STRENGTH: M GED: R3 M3 L3 SVP: 4 DLU: 77

590.487-010 COLOR WEIGHER (fabrication, nec) alternate titles: pigment weigher
Weighs pigments for use in production of hard-surface floor covering: Reviews pattern schedule to determine colors required. Moves bags of designated pigments from storage area to scales, using handtruck. Weighs prescribed pigments, dumps pigment into container, and marks container to indicate sequence in which color should be charged into mixer.
GOE: 06.03.02 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

590.662-010 CONTROLS OPERATOR, MOLDED GOODS (fabrication, nec)
Controls processing of molded hard-surface floor covering on table and in consolidating presses: Starts mechanism that moves carrier (backing) over table and starts color-depositing cycles. Pushes lever to move goods from repair table into flat-bed presses that consolidate carrier and color mix into molded hard-surface floor covering. Observes table operations from control booth to detect equipment malfunction or signals from table crew, and stops table movement to allow STRICKLER ATTENDANT (fabrication, nec) to make adjustments. Reads specifications to determine length of goods required for stoving and affixes register slip on material, at point determined, to guide stoving workers.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L3 SVP: 5 DLU: 77

590.662-014 MECHANICAL OXIDIZER (fabrication, nec)
Controls one or more units of oxidizing equipment to process oils for use in production of hard-surface floor covering: Turns valves to charge prescribed amount of ingredients into equipment, according to formula. Adjusts valves to regulate air supply, as specified, to obtain oxidation. Sets heat controls to maintain prescribed temperature during oxidizing cycle. Tests viscosity of mixture, using viscometer. Observes color of batch during process to determine completion of oxidation, using knowledge gained from previous experience. Opens bottom door to discharge material from oxidizer or starts pumps to remove material for further processing.
GOE: 06.02.18 STRENGTH: M GED: R3 M3 L3 SVP: 5 DLU: 77

590.662-018 MIXING-ROLL OPERATOR (fabrication, nec)
Controls mixing machine to blend asphalt paste of two or more colors to form marbleized asphalt tile: Starts machine and turns valves to heat rollers to specified temperature, or until surface of rollers feels hot enough to melt and mix asphalt. Shovels or feeds asphalt paste of prescribed colors between rollers until mixing appears complete. Signals other workers to cut off and catch marbleized material emerging from machine, and directs helpers who assist in mixing, rolling, and cutting product.
GOE: 06.04.19 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

590.662-022 STOVE-CARRIAGE OPERATOR (fabrication, nec)
Operates stove carriage to form bight (top bend) in floor covering and to feed floor covering into curing stoves, working as member of team: Turns crank to position carriage over batten irons. Adjusts controls to form bight and dip (lower curve). Places cone (hollow cylinder) in curve of dip to prevent kinks and sticking. Places spacing strips of prescribed material over batten irons to form cushion for additional layer of floor covering. Marks or labels sections for sampling. May be designated according to tasks performed as Bight Maker (fabrication, nec); Carriage Feeder (fabrication, nec).
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

590.665-010 OVEN OPERATOR (fabrication, nec)
Tends oven that dries saturated or coated paper felt for use as base or carrier for hard-surface floor covering: Adjusts panel controls to regulate feed of material and temperature of oven. Examines material for paint streaks. Cleans paint-application unit, using spatula or scraper. Observes material for defective splices, tears, and faulty guide alignment.
GOE: 06.04.14 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

590.665-014 PRESS-MACHINE OPERATOR (fabrication, nec)
Tends machine that presses sheets of floor covering onto felt base: Positions roll of felt on machine spindle, using hoist. Turns steam valves to adjust temperature of roller presses of machine. Places sheets of covering on top of felt, and starts machine that presses materials together to form designs. Inspects sheets of floor covering emerging from rollers of machine, and discards defective sheets. May adjust rollers to maintain specified thickness of floor covering, using handtools.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

590.665-018 WINDER OPERATOR (fabrication, nec) alternate titles: roll-up operator
Tends winding machine that rolls lengths of floor covering between various stages of processing, working as member of crew: Removes spindle from dolly and positions spindle in winding machine, using power hoist. Pulls end of floor covering sheet through winder and secures sheet to empty spindle, using tape. Starts machine, and regulates speed of winder to maintain even winding. Adjusts tension rolls on machine and sets yardage counter, using handtools. Examines material for pinholes, using magnifying glass. Stops machine when splices reach winder, indicating end of roll. Tears or cuts spliced section, tapes end of sheet to prevent unwinding, and removes full spindle of floor covering from machine. Records locations of pinholes and other imperfections on card and attaches card to full spindle. May stop machine during winding and cut out designated defective sections of floor covering.
GOE: 06.04.09 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

590.667-010 STOVE-BOTTOM WORKER (fabrication, nec)
Removes cones (hollow cylinders) from dips (lower curves) in floor covering hanging in curing stoves and replaces cones with larger ones to prevent faces of floor covering from sticking together. Signals STOVE-CARRIAGE OPERATOR (fabrication, nec) at top of stoves to adjust length of dips to effect required spacing. Covers floor of stove with paper to prevent dip from touching floor. Attaches identifying tag to each dip according to length.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

590.682-010 CALENDER OPERATOR (fabrication, nec)
Operates calender machine to roll and compress asphalt or asbestos into sheeting to produce floor tile: Sets thermostat to specified temperature and turns valves to admit coolant. Observes temperature-recording chart and adjusts controls to maintain heat of rollers within specified limits. Regulates speed of conveyors that move asphalt or asbestos to calender. May regulate flow of marbleizing chips and wax onto sheet of asphalt or asbestos to attain specified pattern.
GOE: 06.02.18 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

590.684-010 CERAMIC CAPACITOR PROCESSOR (electron. comp.)
Performs any combination of following tasks to process substrate, electrode, and termination materials to form monolithic ceramic capacitors: Reviews work orders and production schedules to determine processing specifications. Deposits layer of dielectric ceramic material on thermoplastic sheets, using tape casting equipment. Cuts cast sheets into ceramic wafers. Verifies and sorts wafers according to thickness and quality, using thickness gauge and magnifying device. Deposits electrode material onto wafers, using silk screen printing machine. Heats and compresses stacks of imprinted, ceramic wafers to form laminates, using laminating press. Cuts laminate into chips, using bench-mounted cutting equipment or automatic cutter. Loads chips onto boat and fires chips in kiln to fuse laminated material. Applies conductive termination material to specified edges of ceramic chips, manually or using automatic dipping equipment. Fuses conductive termination material to ceramic chip, using automatic oven. Polishes fused chip, using tumbler. Solders lead wires to ceramic chip, manually or using automatic soldering machine. Encases capacitors in epoxy material.
GOE: 06.04.08 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 80

590.684-014 ELECTRONIC-COMPONENT PROCESSOR (electron. comp.)
Performs any combination of following tasks to process materials into finished or semifinished electronic components: Reads work orders, formulas, and processing charts, and receives verbal instructions to determine specifications and sequence of operations. Weighs or measures specified ingredients and binding agents, using scales and graduates. Mixes and grinds material, using manual or automatic machines and equipment. Loads, unloads, monitors operation, and adjusts controls of various processing machines and equipment that bake, diffuse, cast, x ray, cut, polish, coat, plate, silk-screen, and perform similar operations to prepare, combine, or change structure of materials to produce compositions with specific electronic properties. Cleans materials as required prior to processing operations, using solvents. Inspects, measures, and tests components according to specifications, using measuring instruments and test equipment. Encloses components in housings. Stamps or etches identifying information on finished component. Counts, sorts, and weighs processed items. Maintains manual or computerized records of production and inspection data. May be designated according to duties performed as Baker, Beads (electron. comp.); Firer (electron comp.); Pellet-Preparation Operator (electron. comp.); Preforming-Machine Operator (electron. comp.); Vacuum-Evaporation Operator (electron. comp.); Weight-Count Operator (electron. comp.). Assembly of processed materials, parts, and components is covered under ELECTRONICS ASSEMBLER (electron. comp.) 726.684-018 and ELECTRONICS ASSEMBLER, DEVELOPMENTAL (electron. comp.) 726.261-010.
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 88

590.684-018 ETCHED-CIRCUIT PROCESSOR (electron. comp.)
Performs any combination of following tasks to print and etch conductive patterns on copper-faced plastic, fiberglass, or epoxy board to fabricate printed circuit boards (PCB's): Cuts board to designated size, using sheet metal shears, following written or verbal instructions. Sands board and either places board in vapor degreaser or immerses board in chemical solution to clean and remove oxides and other contaminants. Sprays or brushes light-sensitive enamel on copper surface and places board in whirler machine to spread enamel evenly, or tends machine that flows light-sensitive resist over board. Laminates light-sensitive dry film to board, using heat and pressure equipment. Exposes board and circuit negative to light in contact printer for specified period of time to transfer

image of circuit to board. Immerses exposed board in solution to develop acid-resistant circuit pattern on surface. Compares board to sample to verify development of pattern. Applies acid resist over sections of pattern not developed, using brush. Immerses board in acid or tends etching machine to etch conductive pattern on copper surface. Immerses board in solution to dissolve enamel. Drills holes in board, using drill press, following work sample, drawing, and diagrams. Installs hardware, such as brackets, eyelets, and terminals, using eyelet machine and hand arbors. Reduces circuit artwork prior to printing onto board, using reduction camera. Prints conductive pattern onto board, using silk-screen printing device. Fabricates PCB used as prototype of production model.
GOE: 06.02.32 STRENGTH: L GED: R3 M3 L3 SVP: 4 DLU: 87

590.684-022 SEMICONDUCTOR PROCESSOR (electron. comp.)
Performs any combination of following tasks to process materials used in manufacture of electronic semiconductors: Saws, breaks, cleans, and weighs semiconductor materials to prepare materials for crystal growing. Forms seed crystal for crystal growing, using x-ray equipment, drill, and sanding machine. Loads semiconductor material, seed crystal, and dopant into crystal growing furnace and monitors furnace to grow crystal ingot of specified characteristics. Grinds ingot to attain specified diameter and cylindricity, using grinding machine. Locates crystal axis of ingot, using x-ray equipment, and grinds *flat* on ingot. Saws ingot into wafers, using power saw. Etches, laps, polishes, and heat treats wafers to produce wafers of specified thickness and finish, using etching equipment, lapping and polishing machines, and furnace. Cleans materials, seed crystals, ingots, and wafers, using cleaning, etching, and sandblasting equipment. Inspects materials, ingots, and wafers for surface defects. Measures dimensions of ingots and wafers, using precision measuring instruments. Tests electrical characteristics of materials, ingots, and wafers, using electrical test equipment.
GOE: 06.04.32 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 86

590.684-026 ETCHER-STRIPPER, SEMICONDUCTOR WAFERS (electron. comp.)
Immerses semiconductor wafers in series of chemical baths to etch circuitry patterns into or to strip excess photoresist from wafer surfaces: Places semiconductor wafers in containers, such as boats or cassettes, using vacuum wand or tweezers. Immerses loaded containers in series of chemical and water baths to etch circuitry patterns into or strip excess photoresist from wafer surfaces. Places loaded container into air or spin dryer and pushes buttons to activate drying cycle. May visually inspect etched and stripped wafer, using microscope, to detect scratches, contaminants, and to verify conformance to specifications. May tend plasma (gas) etch machine to etch circuitry patterns into wafer surfaces. May clean and maintain chemical baths.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 88

590.684-030 MATERIAL PREPARATION WORKER (electron. comp.)
Performs any combination of following tasks involved in cleaning, sorting, breaking, weighing, and packaging chunks of silicon for crystal growing: Sandblasts chunks of silicon or immerses chunks in cleaning tanks to remove contaminants. Breaks chunks of silicon into pieces of specified size, using hammer. Tests and sorts silicon pieces according to resistivity type and level, using resistivity device or meter. Weighs out specified amounts of silicon to prepare charges (specified amounts of materials) for crystal growing process, loads silicon into charge can, and records identifying information on label of charge can. May transport charges to crystal growing department.
GOE: 06.03.02 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 86

590.684-034 PHOTO MASK CLEANER (electron. comp.)
Performs any combination of following tasks to clean production photo mask plates used in fabrication of semiconductor devices: Reads specifications sheet to verify type of photo mask plate and number of production runs for each plate. Marks number of production runs on border of each photo mask plate, using diamond scribe. Immerses photo mask plates into series of chemical baths to strip photoresist from photo mask. Places photo mask plates in chamber of specified cleaning machine and starts machine that automatically cleans and dries photo mask plates. Places photo mask plates in chamber of coating machine and starts machine that automatically deposits specified coating onto photo mask. Monitors operation of machines. Inspects photo mask plates for defects or insufficient cleaning, using microscope. Records process and inspection information in logbook.
GOE: 06.04.34 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 86

590.684-038 POLYSILICON PREPARATION WORKER (electron. comp.)
Performs any combination of following tasks to prepare polysilicon for crystal growing process: Operates drilling machine to remove core sample from polysilicon rod for evaluation. Breaks polysilicon rod into chunks, using hammer. Removes tungsten filament from chunks, using circular saw or drill. Immerses polysilicon chunks into series of vats containing chemical solutions to remove contaminants, using steel basket and hoist. Breaks chunks of polysilicon into pieces, using hammer, to prepare polysilicon for meltdown in crystal growing process. Records production information.
GOE: 06.04.19 STRENGTH: V GED: R2 M2 L2 SVP: 2 DLU: 86

590.684-042 INTEGRATED CIRCUIT FABRICATOR (electron. comp.) alternate titles: wafer fab operator
Performs any combination of following tasks to fabricate integrated circuits on semiconductor wafers according to written specifications: Loads semiconductor wafers into processing containers for processing or into inspection equipment, using tweezers or vacuum wand. Cleans and dries photo masks and semiconductor wafers to remove contaminants, using cleaning and drying equipment. Inspects photo masks and wafers for defects, such as scratches, using microscope, magnifying lens, or computer-aided inspection equipment. Deposits layer of photoresist solution on wafers, using automated equipment. Aligns photo mask pattern on photoresist layer, exposes pattern to ultraviolet light, and develops pattern, using specialized equipment. Alters electrical nature of wafer layers according to photo mask patterns to form integrated circuits on wafers, using equipment, such as acid baths, diffusion furnaces, ion implant equipment, and metallization equipment. Removes photoresist from wafers, using stripping chemicals and equipment. Inspects and measures circuitry for conformance to pattern specifications, using microscope with measuring attachment. Tests functioning of circuitry, using electronic test equipment and standard procedures.
GOE: 06.04.34 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 90

590.685-010 BACKING-IN-MACHINE TENDER (fabrication, nec)
Tends machine that feeds molded floor covering into stove for heat-treating: Positions roll of floor covering on spindle of machine, using power hoist. Threads floor covering through rollers and attaches cable that pulls floor covering into stove. Presses foot brake to control feed of material. Removes empty spindle from stand, replaces it with full roll, and attaches material to end of previous roll.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

590.685-014 COATING-MACHINE OPERATOR (fabrication, nec) alternate titles: coater
Tends machine that coats asphalt-impregnated felt paper with paint to seal in asphalt and prevent discoloration of light-colored enamels used for finishing: Mounts roll of paper on machine spindle and feeds end of roll through machine or splices end to roll in machine. Fills hoppers with paint. Starts machine that coats paper with paint and observes operation and rewinding of paper in *festoon* ovens for drying. Adjusts oven controls to maintain specified temperature for drying coated paper. Removes paper rewound on rolls from oven when dried.
GOE: 06.04.21 STRENGTH: M GED: R3 M2 L3 SVP: 4 DLU: 77

590.685-018 DIAMOND BLENDER (cutlery-hrdwr.)
Tends mixing machine that blends metal powders with diamonds and powered press that presses metal powder and mixed diamond powder onto bottom surface of mold cavity: Weighs and dumps ingredients into mixing machine. Starts machine that blends metal powder with diamonds. Removes mixture from machine and distributes portions to mold loaders. Requisitions graphite molds and punches. Pours metal powder onto backing cavity of mold and mixed diamond powder onto front of mold cavity, and places mold on table of powered press. Starts machine that presses powders onto bottom surface of mold cavity. Removes mold from press and inserts separation plates between center surfaces of molds. Glues molds together. Records number of molds filled from each diamond batch. Removes excess particles from induction-fired molds.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 4 DLU: 77

590.685-022 DIPPER (fabrication, nec) alternate titles: gauger
Tends equipment that applies inflammable tips to kitchen, penny, and book matches: Raises or lowers conveyor or dip roll in tank. Turns handwheel to adjust machine to immerse matches to specified depth in matchhead compound. Sets thermostat or reads thermometer in compound dip tank and turns steam and cold water valves to regulate compound temperature and viscosity. Compares size of matchheads passing on conveyor with drawings of acceptable matchheads and cuts unacceptable matches from conveyor, using long-handled push knife. Drains and washes dip tanks to remove thickened compound. May replenish compounds and paraffin in dip tank [COMPOUND FILLER (chemical)]. May replace worn or bent cutter blades that trim wood matches, using handtools. May tend automatic machine that cuts rolls of cardboard into strips and apply inflammable material to matchheads and be designated Strip-Machine Tender (fabrication, nec).
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

590.685-026 DRY-CHARGE-PROCESS ATTENDANT (elec. equip.)
Tends equipment that washes, treats, and dries formed dry-charge battery plates: Turns valve to drain water into bath compartment. Mixes solutions, according to specifications, in measuring tank and drains solutions into other compartments. Ignites oven burner and starts blower. Observes thermometer and gauges and adjusts temperature control and valves to maintain specified temperature and pressure in dryer. Starts and regulates speed of conveyor that conveys batteries through bath, solutions, and dryer. Determines oxygen content of gas in oven, using testing device and adjusts airflow to reduce oxidation of plates. Transfers batteries from forming department to machine, using handtruck. Strips connectors from batteries and loads batteries into racks in water bath. Loads containers (battery boxes) from pallet to handtruck at discharge end of machine. Unloads batteries from dryer and tests each battery for moisture content, using resistance meter. Segregates damp batteries and inserts dry batteries in containers according to specified polarity. Transfers batteries to final assembly area, using handtruck. May tend conveyor-equipped drying compartment that dries battery plates and be designated Plate-Drying-Machine Tender (elec. equip.).
GOE: 06.04.19 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

590.685-034 FIRER (jewelry-silver.) alternate titles: baker; kiln operator
Tends electric oven that fuses enamel onto metal jewelry parts: Sets controls to heat oven to specified temperature. Places tray or rack containing jewelry

parts, on which liquid or powder enamel has been applied, in oven. Removes tray or rack from oven after prescribed period, using tongs, and allows enameled parts to cool. May determine when settings are sufficiently heated by observing color of enamel. May anneal jewelry parts by heating them in oven to soften metal preparatory to forming and shaping them.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

590.685-038 HEEL SPRAYER, MACHINE (boot & shoe) alternate titles: sprayer
Tends machine that sprays wood or plastic heels with lacquer for preservative and decorative effect: Pours lacquer into dispenser. Turns valve to adjust spray mechanism and seats heel on spindle. Activates revolving spindle and spray mechanism to spray lacquer on heel. Examines heel to determine coverage. Adds thinning solution to lacquer as needed. Loads finished heels on rack to dry. May spray leather heels with wax.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

590.685-042 IRONER (button & notion) alternate titles: zipper ironer
Tends machine that removes wrinkles from plastic or nylon zippers: Mounts reel of continuous chain zipper onto payoff spindle and turns steam valve to heat grooved irons. Depresses pedal to separate irons and positions chain between irons with nylon or plastic filament in groove. Releases pedal to close irons and starts machine.
GOE: 06.04.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

590.685-046 JEWELRY COATER (jewelry-silver.)
Tends equipment that coats jewelry parts with powdered enamel: Places jewelry on racks, rods, or in wire trays, and sprays jewelry with agar solution for subsequent application of powdered enamel on metal, using spray gun. Fills hopper of machine with specified shade of powdered enamel. Places rods or racks on conveyor and starts vibrating machine that shakes powder onto parts passing under opening. Dries enamel-coated parts in oven preparatory to firing them at high temperature.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

590.685-050 ROLL-UP-GUIDER OPERATOR (fabrication, nec)
Tends equipment that moves hard-surface floor covering over inspection table, trims selvage edges, and rolls up inspected material, working as member of crew: Starts machine that pulls hard-surface floor covering across cutting table and onto roll-up spindle. Sets selvage knives on both sides of table to cut specified width from edge of material. Scans floor covering through mirrors for inspection marks, and stops equipment to cut out defective area, using linoleum knife. Guides floor covering under knives to make specified lengthwise split of defective area from material.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L1 SVP: 4 DLU: 77

590.685-054 WAD IMPREGNATOR (ordnance)
Tends tumbling barrels that impregnate shotgun-shell filler wads with wax to seal propellant charge against moisture and facilitate ejection of wad when shell is fired: Weighs and dumps specified quantity of wads and wax into steam-heated barrel. Stops barrel at end of prescribed time and examines wads for color shade indicating sufficient impregnation. Weighs specified number of impregnated wads and compares with weight of equal number of dry wads, using chart, to confirm that correct amount of wax has been absorbed.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

590.685-058 WAD LUBRICATOR (ordnance) alternate titles: bar-gauger and lubricator tender
Tends batteries of automatic machines that tumble wads for shotgun shells to remove feathery edges, gauge thickness, and lubricate circumference with wax: Fills tumbling barrel with wads from overhead hopper and starts tumbler rotating. Examines wads after estimated time to verify that edges are smooth. Starts machines that reject too thick or too thin wads and replaces filled barrels under accepted and rejected chutes. Dumps accepted wads into pneumatic conveyor that carries them to lubricator hopper. Turns steam valves to liquefy and regulate flow of wax over lubricating plate. Starts feeder plate to arrange wads flat-side-up and feed them between roller and lubricating plate that coats sides with wax. Weighs designated number of wads at prescribed intervals before and after lubricating to determine amount of wax applied. Clears jammed wads, using wire hook.
GOE: 06.04.14 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

590.685-062 CLEANING MACHINE TENDER, SEMICONDUCTOR WAFERS (electron. comp.)
Tends equipment that chemically cleans semiconductor wafers used in manufacture of semiconductor components, such as transistors, diodes, and integrated circuits: Places specified program card into cleaning equipment. Places wafers in cleaning trays, using tweezers. Loads trays into cleaning equipment. Pours cleaning solutions, such as hydrogen peroxide, sulfuric acid, and hydrochloric acid into specified tank of cleaning equipment. Presses buttons to activate cleaning cycle. Removes semiconductor wafers from trays, using tweezers. Visually inspects semiconductor wafers for blemishes. Maintains production reports.
GOE: 06.04.39 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

590.685-066 COATING EQUIPMENT OPERATOR, PRINTED CIRCUIT BOARDS (electron. comp.)
Tends automated equipment that applies photosensitive coating of masking ink to printed circuit board (PCB) panels to facilitate development of circuit design on boards in fabrication of PCBs: Pushes buttons and switches to star heater, conveyor, and coating equipment. Measures conveyor travel time o sample panel, using stopwatch, and weighs sample panel, using digital scale to ensure that specifications are met. Turns dials to adjust conveyor speed an to add or delete masking ink in solution, as needed. Feeds panels onto conveyo of automated equipment that cleans, heats, and applies masking ink to panels Removes panels from unloading rack upon completion of coating process an dries panels in oven. Records production data.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 86

590.685-070 DIFFUSION FURNACE OPERATOR, SEMICONDUCTO WAFERS (electron. comp.)
Tends furnaces that diffuse chemicals into semiconductor wafer surface t alter electrical characteristics of wafer or to protect wafer surfaces: Places sem conductor wafers in containers, such as *boat* or cassette, using vacuum wan or tweezers. Places loaded container on furnace loader, such as conveyor, trac sled, or tube. Pushes button to advance wafer containers into furnace or pushe wafer container into furnace tube, using quartz rod. Pushes buttons or key commands on control panel keyboard to activate furnace diffusion cycle. Observes gauges and meters to verify that furnace gases and temperature mee specifications. Maintains production records. Turns dials to adjust furnace gase and temperature, if required. May clean semiconductor wafers, using cleanin equipment, to remove contaminants prior to diffusion. May test and inspe wafer, using testing equipment, to measure resistivity and thickness.
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 86

590.685-074 ETCH OPERATOR, SEMICONDUCTOR WAFERS (ele tron. comp.)
Tends etch machine and equipment that remove metal and photoresist an etches electronic circuitry into metallized substrate of wafer surface, accordin to processing specifications: Places wafers in boats, using tweezers or vacuu wand. Places boats in etch machine or equipment. Turns dials, sets timer an gauges on equipment, or presses buttons on machine to activate etch cycle etch or remove materials from wafer surface, such as metal or photoresist. Inspects wafer to verify that wafers are not over-etched and that photoresist ha been removed, using microscope. May measure specified dimensions of wafer using microscope measuring attachment. May manually immerse loaded boa into chemical solution baths to etch circuitry into wafer surface.
GOE: 06.04.19 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 88

590.685-078 ETCHER (electron. comp.) alternate titles: wafer etcher
Tends etching equipment that reduces thickness of semiconductor wafer Transfers wafers from storage container to chemical resistant *boat*. Monito control panel of etching equipment to verify that etching solution temperatur meet processing specifications. Immerses boat of wafers into series of sin containing etching solutions and water rinses and sets timers. Measures waf thickness before and after etching, using thickness gauge, and calculates waf thickness removed by etching. Tends machine that rinses and dries etched w fers. Records production details on work order. Replaces etching and rinsi solutions in equipment and cleans work area. May measure wafer flatnes using flatness gauge. May measure diameter of semiconductor crystals, usi micrometer, and tend etching equipment that reduces crystal diameter. May ca culate etching time based on thickness of material to be removed from wafe on crystals.
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 86

590.685-082 STRIPPER-ETCHER, PRINTED CIRCUIT BOARDS (ele tron. comp.)
Tends equipment that strips photoresist film and etches layers of copper lan nate from exposed surface of printed circuit board (PCB) panels leaving une posed areas to form conductive circuitry pattern: Reads process specificatio and adjusts equipment controls to regulate conveyor speed, spray intensity, a solution strengths and temperatures. Positions copper panels coated wi photoresist on conveyor that carries panels through series of processing uni such as sprayers, rinsers, scrubbers, and dryers. Starts and monitors equipme that chemically strips photoresist and excess copper from exposed areas of PC panels leaving unexposed copper to form circuitry pattern. Observes equipme operation, gauges, and meters to detect malfunctions or variance from specific tions. Visually examines sample boards during and after processing for co formance to specifications. Notifies supervisor of equipment malfunction substandard etching quality. Reroutes panels through processing units to co plete stripping or etching process. May periodically change or adjust chemic and solutions. May test acid solution, using pH meter. May manually imme panels into processing tanks. May inspect circuitry pattern on panels, using m croscope. May be identified according to process involved and be designat Etcher, Printed Circuit Boards (electron. comp.); Stripper, Printed Circ Boards (electron. comp.).
GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 3 DLU: 88

590.685-086 METALLIZATION EQUIPMENT TENDER, SEM CONDUCTORS (comm. equip.; electron. comp.; inst. app.)
Tends equipment that deposits layer of metal on semiconductor surfaces provide electrical contact between circuit components: Places semiconducto such as silicon wafers, crystal units, or fiber optic microchannel plates, in co tainer, using vacuum wand or tweezers. Cleans semiconductors to remove co taminants prior to metal deposition, using chemical baths or automatic cleani

equipment. Loads semiconductors into metallization equipment holders, using vacuum wand or tweezers. Places loaded holders and specified metals in chamber of equipment that deposits layer of metal, such as aluminum, gold, or platinum, on semiconductor surfaces, by *sputtering* or evaporation process. Manipulates equipment controls that start and adjust metallization process, following processing specifications. Measures electrical conductivity and thickness of metal layer on processed semiconductors, using test equipment. Maintains chemicals and metals for equipment. May tend equipment that deposits insulating layer of glass onto semiconductor wafer surfaces and be designated Glass Deposition Tender (electron. comp.).
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 3 DLU: 88

590.685-090 CURING OVEN ATTENDANT (aircraft mfg.; electron. comp.)
Tends electric ovens that cure electronic and aircraft parts, such as printed circuit boards and composite structures and assemblies: Reads work order to determine process specifications for parts to be cured. Loads parts in oven. Pushes button on oven to start curing cycle. Observes control panel indicators, such as gauges, dials, and recorders, to monitor oven operation. Unloads parts at end of curing cycle. Records processing information in curing log. Cleans oven and work area. May operate material handling equipment to load, unload, and transport parts. May adjust controls to regulate processing time and temperature.
GOE: 06.04.19 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 86

590.685-094 PLASMA ETCHER, PRINTED CIRCUIT BOARDS (electron. comp.)
Tends plasma equipment that dry etches unprotected copper from substrate boards or panels to form circuit patterns on printed circuit boards (PCBs): Hangs boards or panels on racks in plasma tank and locks door. Adjusts controls, according to process specifications, to set time, wattage, and percentage of oxygen and nitrogen gases in plasma tank. Pushes button to activate equipment that automatically plasma-etches excess copper from boards or panels to form circuit pattern. Removes boards or panels after processing and inspects boards for completeness of etching process, using microscope. May tend computer-controlled plasma etch equipment that automatically computes and adjusts control settings for time, wattage, and gas content based on data entered, such as quantity of boards and lot number.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 86

590.685-098 ROOFING-MACHINE TENDER (nonmet. min.)
Tends machine that cools and dries coatings applied to roofing material prior to cutting process: Reads work schedule to determine type, amount, and color of roofing material to be processed. Selects machine attachments, such as paint rollers or embosser, depending on material to be processed, and places attachments in designated slots on machine. Places hoses connected to paint tank on machine into paint barrels to circulate paint through tank, or turns handwheel to lower embosser that presses design onto roofing material. Flips switches, turns dials, or pushes buttons to activate pumps that recycle paint, to circulate water to spray system and cooling drums, to raise or lower rollers to flatten and smooth granules on roofing material, to control length of roofing material in cooling or drying sections, and to start hot or cool air blowers. Patrols cooling section of machine to detect sand stuck on rollers or cooling drums, and scrapes off sand to prevent puncture damage to roofing material, using scraper. Observes hand signals of other workers and adjusts speed of rollers, temperature of air, or distance between rollers in drying section of machine, depending on type of signal. Rethreads roofing material through machine after break, assisted by other workers.
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 3 DLU: 86

590.685-102 WAFER CLEANER (electron. comp.)
Tends equipment that cleans surface of semiconductor wafers after slicing or polishing: Reviews work orders to determine processing steps. Sets temperature controls on automatic chemical cleaning machine or sinks of chemical cleaning station. Places containers of semiconductor wafers into drum of cleaning machine or into heated sinks of solutions in cleaning station to remove dust, oil, wax, slurry, or debris from surface of wafers. May load containers of wafers into scrubbing machine that brushes and sprays contaminants from wafers and dries wafers. May tend machine that dries wafers.
GOE: 06.04.19 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 86

590.686-010 COATING-MACHINE-OPERATOR HELPER (fabrication, nec) alternate titles: loop tender
Mounts roll of asphalt-impregnated felt paper on machine that paints paper to make floor covering: Observes paint level in pans to ensure that prescribed amount is pumped into pans to cover rolls. Examines impregnated felt paper to detect tears. Notifies COATING-MACHINE OPERATOR (fabrication, nec) of discrepancies. Removes painted floor covering from machine.
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

590.686-014 GUIDER (fabrication, nec)
Guides material used in production of hard-surface floor covering, through rollers to and from processing equipment: Pushes end of material into rollers that convey material through saturation, coating, consolidation, or curing processes. Observes material in passage to detect unevenness or misalignment with marginal markings on roller guides. Pulls material into line manually or turns wheel of mechanical guiding device to straighten material. May be designated according to phase of operation or type of material being processed as Carrier Guider (fabrication, nec); Dip Guider, Stoves (fabrication, nec); Roll Guider, Mold Goods (fabrication, nec); Side Guider (fabrication, nec).
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

590.687-010 LABORER (fabrication, nec)
Performs any combination of following tasks in candlemaking plant: Rethreads molds in casting machines with wick material from spools. Mixes batches of colored wax, according to established formulas. Cleans wax reservoir, vats, and processing equipment, using water, soap, and detergents. Loads and unloads trucks. Carries or handtrucks materials, products, and equipment to workers or warehouse.
GOE: 06.04.34 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

590.687-014 PLASTIC-JOINT MAKER (brick & tile)
Casts plastic joints for sewer pipe in joint mold: Removes dirt, dust, or grease from pipe, using airhose, rags, and solvent. Examines pipe for straightness, chips, or cracks. Brushes adhesive on end of pipe. Loads pipe on conveyor, using air hoist. Positions joint mold on pipe. Lifts container and pours plastic materials into mold. Places pipe on conveyor leading to curing oven. Removes cured pipe from conveyor at discharge end of oven. Trims excess plastic from joint, using knife.
GOE: 06.04.32 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

590.687-018 RACK LOADER (fabrication, nec)
Loads felt-base floor coverings onto racks of oven for drying: Strings pull-in cable and clamp through drying oven rack. Fastens clamp to end of floor covering emerging from printing machine, and pulls floor covering onto oven rack. Removes clamp and pull-in cable upon filling of loading rack.
GOE: 06.04.40 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

590.687-022 RUG CUTTER (fabrication, nec)
Cuts specified lengths of floor covering from spindle of rolling machine, using knife.
GOE: 06.04.24 STRENGTH: M GED: R1 M1 L1 SVP: 1 DLU: 77

599 MISCELLANEOUS PROCESSING OCCUPATIONS, N.E.C.

This group includes miscellaneous occupations, not elsewhere classified, concerned with processing materials and products.

599.132-010 SUPERVISOR, TUMBLERS (ordnance) alternate titles: wash-barrel leader
Supervises and coordinates activities of TUMBLER OPERATORS (any industry) engaged in removing scale, burrs, or grease from gun or cartridge parts. Mixes acid solutions in tank according to formula. May experiment with new formulas for abrasives and cleansing materials to be used in tumbling barrels. Performs other duties as described under SUPERVISOR (any industry) Master Title.
GOE: 06.02.01 STRENGTH: L GED: R4 M3 L3 SVP: 7 DLU: 77

599.137-010 SUPERINTENDENT, SEED MILL (agriculture)
Supervises and coordinates activities of workers engaged in drying, cleaning, sorting, treating, and packaging seeds in seed processing plant: Observes and feels incoming seed shipments to determine cleaning and drying requirements, utilizing knowledge of seed characteristics and processing standards. Instructs and monitors workers in use of equipment that sifts debris from seeds, removes moisture from seeds, scrapes off outer layers of seed cover, and sorts seeds according to weight and size. Oversees treatment of seeds with specified chemicals to fill customer orders. Assists and directs workers in loading, unloading, and conveying seeds in warehouse and processing area, using forklift, and in boxing seeds for storage or shipment. Performs routine equipment maintenance, such as lubrication and replacement of parts.
GOE: 06.02.01 STRENGTH: M GED: R3 M2 L3 SVP: 6 DLU: 86

599.382-010 PAINT-SPRAYER OPERATOR, AUTOMATIC (any industry) alternate titles: spray-machine operator
Sets up and operates painting and drying units along conveyor line to coat metal, plastic, ceramic, and wood products with lacquer, paint, varnish, enamel, oil, or rustproofing material: Places or racks workpieces on conveyor. Turns valve to regulate water shield spray. Starts pumps to mix chemicals and paints, to fill tanks, and to control viscosity, adding prescribed amounts or proportions of paints, thinner, and chemicals to mixture. Screws specified nozzles into spray guns and positions nozzles to direct spray onto workpiece. Lights ovens, turns knobs, and observes gauges on control panel to set specified temperature and air circulation in oven, to synchronize speed of conveyor with action of spray guns and ovens, and to regulate air pressure in spray guns that atomize spray. Determines flow and viscosity of paints and quality of coating visually or by use of viscometer. May spray coated product with salt solution for prescribed time to determine resistance to corrosion. May be designated according to coating applied as Bonderite Operator (any industry); Control Operator, Flow Coat (elec. equip.); or according to article coated as Gunstock-Spray-Unit Adjuster (ordnance).
GOE: 06.02.21 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 77

599.382-014 EXHAUST EQUIPMENT OPERATOR (electron. comp.) alternate titles: exhaust operator
Sets up and controls exhaust equipment to remove gases and impurities from electron and cathode ray tubes, following procedure manuals, work orders, and

specifications: Reads production schedules and procedure manuals to determine tube specifications and operational sequence. Calculates equipment control settings, applying standard formulas to determine power, temperature, and vacuum, according to tube size and type. Sets controls on power supplies, ovens, and pumps according to calculations. Observes meters, gauges, and recording instruments during operation, and adjusts controls to ensure tubes are exhausted as specified. Troubleshoots exhaust equipment to locate malfunction when tubes fail to exhaust. Repairs faulty exhaust equipment, or notifies maintenance department of faulty equipment. May test and inspect tubes for leaks, using leak detection equipment. May set up and operate aging equipment to stabilize electrical properties of tube. May be designated according to type of equipment operated as Rotary Pump Operator (electron. comp.).
GOE: 06.01.03 STRENGTH: M GED: R4 M4 L4 SVP: 6 DLU: 89

599.585-010 STERILIZER (medical ser.; pharmaceut.; protective dev.) alternate titles: autoclave operator
Tends autoclave that sterilizes drug products, containers, supplies, instruments, and equipment: Places articles in autoclave manually or by use of electric hoist. Secures door or lid, turns dials to adjust temperature and pressure, and opens steam valve. Shuts off steam and removes sterilized articles after specified time. Records time and temperature setting and gauge readings. May wrap supplies and instruments in paper or cloth preparatory to sterilizing.
GOE: 06.04.19 STRENGTH: L GED: R3 M2 L3 SVP: 3 DLU: 77

599.665-010 SEED-CLEANER OPERATOR (agriculture; oils & grease) alternate titles: seed cleaner; seed-cleaning-machine operator
Tends machines that remove foreign matter from grass seed, grain, or cottonseed: Starts machines and turns handwheel to regulate flow of material into machines. Brushes cleaning screens, using wire brush to prevent clogging. Empties trash bags attached to machines.
GOE: 06.04.09 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

599.682-010 PAINTER, ELECTROSTATIC (any industry) alternate titles: electronic paint operator
Operates cone, disk, or nozzle-type electro-static painting equipment to spray negatively charged paint particles onto positively charged workpieces: Moves switches and dials to start flow current and to activate conveyor and paint spraying equipment. Turns valves and observes guages to set pressure and to control flow of paint to each spray station. Adjusts thermostat to maintain specified temperature in paint tanks. Inspects painted units for runs, sags, and unpainted areas. Readjusts pressure valves to control direction and pattern of spray and to correct flaws in coating. Cleans paint from ceiling and walls of booth, conveyor hooks or grid, and from disks, cones, spray heads, and hoses, using solvent and brush. May hand-spray parts to cover unpainted areas or apply rust preventative. May mix paint according to specifications, using viscometer to regulate consistency according to changes in atmospheric conditions.
GOE: 06.02.21 STRENGTH: L GED: R3 M2 L3 SVP: 4 DLU: 77

599.682-014 IMPREGNATOR AND DRIER (elec. equip.; electron. comp.)
Controls equipment such as tanks, vats, ovens, and retorts, to impregnate, dry, or bake insulating, preserving, sealing, or other materials into or onto electrical or electronic components, according to specifications: Reads work orders to determine process specifications and priorities. Loads components into or onto devices, such as racks, arbors, and baskets, manually or using hoist. Manipulates controls to start and stop equipment, such as impregnating tanks, vacuum tanks, and drying and curing ovens, and to regulate processing factors, such as flow of fluids into vats or tanks, vacuum pressure, temperature, and processing time. Monitors equipment to ensure conformance to processing specifications, and records processing information. May operate molding press to encase components in protective compounds. May examine processed components for defects. May trim excess material from components. May clean component parts prior to processing. May spray protective or other coating onto surface of components, using spray gun. May weigh or melt ingredients and mix compounds. May transport components to other areas of plant. May be designated according to processing material or activity involved as Drying-Equipment Operator (elec. equip.); Impregnator, Carbon Products (electron. comp.); Impregnator, Electrolytic Capacitors (eleciron. comp.); Wax Impregnator (electron. comp.).
GOE: 06.02.18 STRENGTH: M GED: R3 M2 L3 SVP: 5 DLU: 87

599.684-010 EQUIPMENT CLEANER (any industry) alternate titles: night cleaner
Cleans and sterilizes machinery, utensils, and equipment used to process or store products, such as chemicals, paint, food, or beverages: Turns valves to drain machines or tanks and disconnects pipes, using wrenches. Sprays machines, tanks, and conveyors with water to loosen and remove dirt or other foreign matter. Scrubs machines, tanks, tables, pans, bowls, compartments, and conveyors, using brushes, rags, cleaning preparations, and diluted acids. Rinses articles with water, and dries them with compressed air. Scrubs floors and walls, using brushes, rags, and diluted acids. Connects hoses and lines to pump and starts pump to circulate cleaning and sterilizing solution through hoses and lines. Scrubs interior of disconnected pipes, valves, spigots, gauges, and meters, using spiral brushes. Mixes cleaning solutions and diluted acids, according to formula. Draws off samples of cleaning solutions from mixing tanks for laboratory analysis. May replace defective sections of metal coils and lines, using handtools, soldering iron, and pipe couplings. May lubricate machinery. May be designated according to equipment cleaned as Beer-Coil Cleaner (any industry); Lard-Tub Washer (meat products); Line Cleaner (beverage; dairy products); Pipe Washer (dairy products). May sterilize equipment and be designated Equipment Sterilizer (dairy products).
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L2 SVP: 2 DLU: 80

599.684-014 SAMPLER (steel & rel.)
Collects samples of materials, such as benzol, coal, coke, sewer water, sulfate, and tar, and prepares them for laboratory analysis: Shovels coal into crusher to grind samples for analysis. Drops weighed sample of coke from drop-door bucket to steelplate, shakes shattered coke through screen of specified mesh and weighs and records weights of large and small sized coke. Weighs sample, dries it in oven, and reweighs sample of quenched coke to determine moisture content. Identifies type and source of sample on container label. May be designated according to source of sample as Sampler, Ovens (steel & rel.).
GOE: 06.03.02 STRENGTH: L GED: R2 M2 L2 SVP: 3 DLU: 77

599.685-014 BRAN MIXER (grain-feed mills)
Tends machine that mixes specified amounts of wheat and rye middlings with sawdust for use in cleaning tinplate and terneplate: Attaches empty sacks to discharge section of machine, starts machine, and dumps ingredients into hopper. Removes filled sacks and sews tops, using needle and twine. Weighs sacks and trucks them to storage area.
GOE: 06.04.19 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 77

599.685-018 CENTRIFUGE OPERATOR, PLASMA PROCESSING (medical ser.; pharmaceut.)
Tends centrifuges which separate plasma from whole blood for extraction of plasma: Packs plastic bags containing freshly drawn whole blood (whole blood units) into designated containers in centrifuge. Fastens centrifuge cover and depresses switch to activate centrifuge mechanism. Removes centrifuged whole blood units after designated time, examines each to confirm separation of plasma from whole blood, and places each whole blood unit in plasma extractor, positioning holes at top of plastic bag on metal prongs. Inserts plastic tube of transfer unit into each whole blood unit and observes process as plasma is extracted from upper portion of plastic bag into bottle, to make certain that no red blood cells are drawn into plasma bottle. Seals off bottle and returns plasma bottle to rack. Removes blood unit from holder and gives to nursing personnel for return to donor. Marks each plasma bottle with blood group as indicated on plastic bag to assure separation of blood groups and prevent cross-contamination of blood groups during fractionation. Stores filled bottles of plasma in freezer. Cleans centrifuges and work area.
GOE: 06.04.11 STRENGTH: L GED: R2 M2 L2 SVP: 2 DLU: 77

599.685-022 DEFINER (button & notion)
Tends battery of machines that tumble metal or plastic buttons in wire mesh barrels to remove mold flash (fins) or rough edges: Loads barrel with buttons. Pours specified amounts of cleaning compound into barrel. Bolts on lid and starts machine to rotate barrel and tumble buttons for specified length of time. Shakes sifter to separate buttons from cleaning compound and shot (ball bearings).
GOE: 06.04.10 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

599.685-026 DIPPER (any industry) alternate titles: dip painter; impregnator
Tends dipping tanks and auxiliary equipment that immerse and coat articles with liquids, such as paint, molten tin, latex, stain, or asphalt: Moves controls to maintain temperature, flow, and composition of liquid. Coats articles, using any of following methods: (1) Loads conveyor or transfer rack that automatically dips articles; (2) Loads wire basket and starts power hoist to lift and dip basket; (3) Dips articles in liquid. Removes excess coating, using rag or brush. May test quality of liquid, using chemically treated paper, color charts, or other devices. Adds coating solution according to test results or specifications. May tend centrifugal drier that dries coating and removes excess. May be designated according to coating applied as Asphalt Coater (elec. equip.); Enamel Dipper (any industry); Porcelain Slusher (any industry); Varnish Dipper (furniture); or according to article dipped as Broom-Handle Dipper (fabrication, nec); Painter, Spring (furniture; metal prod., nec). May be designated: Bluer (ordnance); Bonderizer (auto. mfg.); Clay-Products Glazer (elec. equip.); Paint Dipper (any industry); Rust Proofer (auto. mfg.); Screen-Frame Enameler (struct. metal); Stain Dipper (furniture); Tinner Operator, Connecting Rods (auto. mfg.); Vinyl Dipper (rubber goods).
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 80

599.685-030 DIPPER AND BAKER (any industry) alternate titles: impregnating-tank operator
Dips assembled electrical equipment components into materials, such as varnish, enamel, or asphalt to insulate wires and coils and tends oven that dries dipped components: Pours dipping solution into vat and measures consistency with hydrometer, adding thinner to control density. Sets vat thermostat at prescribed temperature. Hangs or bolts components to be dipped, such as armatures or transformers, on racks, lifts them manually or by use of hand-operated hoist, and immerses them in vat for prescribed time. Removes components and places them on racks to drain. Sets oven temperature controls and places dipped units in oven to bake and dry for specified time. May clean and coat electrical leads by dipping them in molten solder. May paint armatures and field coils, using brush, or pour insulating compound over coils. May be designated according to unit impregnated as Armature Varnisher (any industry); Field-Coil Enameler (any industry).

GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

599.685-034 DYER (fabrication, nec)

Tends equipment that dyes broomcorn used in making brooms: Turns valve to admit water to dye vat and measures and pours dyestuff into vat, according to instructions or color of fiber. Immerses and turns bundles of fiber in dye solution to permeate broomcorn to impart color, using pitchfork. Places fibers on drain rack. May trim fiber stalks, using clippers.

GOE: 06.04.19 STRENGTH: M GED: R2 M2 L2 SVP: 2 DLU: 77

599.685-038 FILTER WASHER AND PRESSER (beverage; chemical) alternate titles: filter-pulp washer

Tends equipment that cleans and reshapes cotton, silk, or woodpulp used as filtering material in filter press to filter liquids, such as alcoholic beverages, gelatin, and glue: Removes dirty filter cakes from filter press, using handtools. Transfers filter cakes from filter press, using handtruck, and drops filter cakes into prebreaker machine that reduces filter cakes to loose, wet pulp. Pumps wet pulp to washing machine. Opens valves to admit and circulate water or steam in washer. Opens screen-covered drain in bottom of washer and continues washing pulp until drain-water runs clear. Pumps clean pulp to storage tank. Opens valve to move pulp from storage tank into hydraulic press. Starts hydraulic press that squeezes water from pulp and forms pulp into filter cake. Removes clean filter cake from hydraulic press, and transfers clean filter cake to filter press, using handtruck. Washes filter press plates, using hose and hot water. Installs filter cake into filter press, using handtools.

GOE: 06.04.19 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-042 FILTER-PRESS TENDER (beverage; chemical)

Tends filter press that filters liquors, such as gelatin, glue, and malt beverages: Turns valves to open lines, and pumps liquor through cotton, silk, or woodpulp filter. Inspects filtered liquors for specified degree of clarity. Recirculates cloudy liquor through filter until clear, or connects line to fresh filter press. Reads gauges that indicate pressure in lines and turns valves to maintain specified pressure. Turns valves to transfer clear liquor to specified department. May clean filter by backwashing it with water. May add *chill-proof* enzymes to filter when filtering beer.

GOE: 06.04.19 STRENGTH: L GED: R2 M1 L2 SVP: 3 DLU: 77

599.685-046 IMPREGNATING-TANK OPERATOR (any industry) alternate titles: coating-machine operator; insulating-machine operator; paint-coating-machine operator; sizing-machine operator

Tends machines that coat continuous rolls of wire, strips, or sheets with wax, paint, rubber, asphalt, or other coating material: Places roll of material onto feed spindle of machine. Threads end through feed and guide rolls into dipping vat or onto transfer roll and through drying oven and attaches it to rewind spindle. Fills boxes or vats with coating solution, such as asphalt or liquid rubber. May sew, crimp, or staple ends of material to form continuous roll. May be designated according to impregnating material used as Enamel-Machine Operator (elec. equip.); Varnishing-Machine Operator (elec. equip.); Waxing-Machine Operator (elec. equip.).

GOE: 06.04.21 STRENGTH: M GED: R3 M2 L2 SVP: 4 DLU: 77

599.685-050 IMPREGNATOR-AND-DRIER HELPER (elec. equip.; light. fix.) alternate titles: impregnating helper

Assists IMPREGNATOR AND DRIER (elec. equip.) in impregnating electrical products, such as capacitors, coils, and stators, performing any of the following duties: Loads capacitors into ovens, using hoist, and connects filler pipe of each capacitor to pipes of vacuum system. Turns valves to start and stop vacuum and regulates control equipment during impregnation process under supervision of IMPREGNATOR AND DRIER (elec. equip.). Reads vacuum gauges and capacitance bridge to determine degree of vacuum and capacitance and records or reports readings to IMPREGNATOR AND DRIER (elec. equip.). Cleans ovens and work areas, using solvent and brushes. Performs other duties as described under HELPER (any industry) Master Title.

GOE: 06.04.19 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

599.685-054 LACQUERER (plastic prod.)

Tends automatic equipment that sprays fabricated plastic articles with lacquer: Pours premixed lacquer into machine reservoir. Places fabricated plastics articles into enclosed spray booth, closes door, and moves lever to activate spraying equipment. Releases lever after articles appear thoroughly coated.

GOE: 06.04.21 STRENGTH: M GED: R2 M1 L1 SVP: 3 DLU: 77

599.685-058 MILL OPERATOR (any industry)

Tends one or more mills that grind materials, such as rock, ore, ingredients for food, drugs, and chemicals with steel, stone, or ceramic balls or rods: Pushes lever or adds balls to mill as needed or specified. Dumps material or opens flow gate to load mill. Secures cover plate. Starts and runs mill for specified time depending on size of load, grindability of material, and required fineness. Removes cover plate, attaches grid, and starts mill to discharge contents. When operating continuous ball mills, regulates inflow of materials and observes outflow to ensure attainment of specified product. May tend mill utilizing vacuum or other pressure. May tend steam-jacketed mill that heats materials during processing. May use mill to mix materials for wet or dry grinding. May keep production records. May be designated according to grinding agent as Ball-Mill Operator (any industry); Pebble-Mill Operator (chemical; paint & varnish); Rod-Mill Operator (any industry); or according to powder ground as Barytes Grinder (paint & varnish).

GOE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 78

599.685-062 OXIDIZED-FINISH PLATER (any industry) alternate titles: plater helper

Tends oxidizing tank that produces dark, lusterless, decorative finish on surface of metal articles, such as door lock parts, buttons, buckles, and small-arm parts: Places containers of workpieces in tank of oxidizing solution for specified time. Dips articles in successive baths to neutralize oxidation. May start tumbling barrel to dry oxidized pieces in sawdust [TUMBLER OPERATOR (any industry)]. May mix chemical solutions according to formula. May tend degreasing tank to clean workpieces before oxidizing.

GOE: 06.04.10 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-066 PAINT-LINE OPERATOR (toy-sport equip.)

Tends equipment that cleans, dips, and sprays toy parts: Mixes paint and thinner of specified color and viscosity, and pours solutions into dipping tanks or containers of electrostatic spraying unit. Adjusts controls of cleaning solution tanks for specified temperature, conveyor controls for rate of movement, and sprayer controls for rate of spray and voltage as indicated by dials. Observes conveyor line until parts run is finished, and changes paint color to meet requirements.

GOE: 06.04.21 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 77

599.685-070 PAINTER, TUMBLING BARREL (any industry) alternate titles: barrel painter

Tends tumbling barrel-painting machine that coats articles of porous materials, such as wooden shoe tree turnings or toy parts, with coating materials, such as paint, varnish, or lacquer: Places parts into tumbling barrel. Mixes coating material and thinner as specified and pours over parts in barrel. Starts barrel rotating to impart coating material on articles while heated air is blown through barrel to dry articles. Stops rotation of barrel, examines articles for uniformity of coating, adds more paint as required, and restarts rotation. Unloads barrel, breaking apart any articles that are stuck together.

GOE: 06.04.21 STRENGTH: M GED: R3 M2 L2 SVP: 3 DLU: 77

599.685-074 PAINTING-MACHINE OPERATOR (any industry) alternate titles: spray-machine operator

Tends machine equipped with compressed-air spray nozzles that coat products or materials with oil, paint, lacquer, varnish, shellac, or rustproofing agents: Pours premixed paint or lacquer into reservoir of machine and couples hose to spray nozzles. Moves sleeve on nozzles to attain specified spraying pressure and turns thumbscrew to direct nozzles toward articles or materials to be coated. Places articles or material onto conveyor or onto transfer table that carries them between spray nozzles. May mix paints with thinner solution according to formula. May regulate temperature of coating solution. May remove articles or materials from conveyor belt and place articles or materials in drying racks or container. May be designated according to coating applied as Lacquer Coater (plastic prod.); Oiling-Machine Operator (steel & rel.); Spray-Painter, Machine (wood prod., nec).

GOE: 06.04.21 STRENGTH: M GED: R2 M1 L2 SVP: 3 DLU: 81

599.685-078 POLISHER (button & notion)

Tends equipment that polishes casein, plastic, or shell buttons: Places buttons in tumbling barrel filled with powdered pumice stone and water, or caustic soda solution. Starts tumbling barrel revolving which causes abrasive to remove tool marks from buttons and to round edges. Dumps buttons from tumbling barrel into open barrel and covers them with hot water. Starts barrel revolving and places specified quantities of sulfuric and hydrochloric acids in barrel to polish buttons. Places buttons in barrel of dry sawdust or ground corncobs to remove residue of acid and give luster to buttons. May tend machines that tumble pearl buttons in bleaching solutions to lighten color.

GOE: 06.04.09 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-082 SCREENER OPERATOR (any industry) alternate titles: separator-machine operator

Tends machine that segregates particles of dry materials, such as sand, powdered minerals, feed, resins, and chemicals, into batches of uniform size by sifting through one or more oscillating screens: Bolts or clamps screen of specified mesh to frame, using handtools. Pours or shovels specified quantities of material into hoppers or onto feed conveyor of machine, manually or using hoist or lift truck. Positions takeoff conveyor, bins, or drums under screens to receive sifted material. Throws switch to activate takeoff conveyor or removes full containers manually or using hoist or truck. May measure or weigh and maintain records of material sifted. May lubricate machine and conveyors.

GOE: 06.04.09 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-086 SHREDDER TENDER, PEAT (agriculture)

Tends equipment that grinds and bags peat moss: Dumps peat moss into shredder that removes foreign matter, using tractor. Observes graph on gas furnace that dries peat moss and adjusts thermostat to maintain specified temperature. Inspects equipment to detect jams and mechanical breakdowns in equipment which cools and grinds peat moss. Observes and feels ground peat moss to determine its consistency. Stops equipment to clear jams and make minor adjustments to fans, blowers, and hammer mill, using handtools. Attaches bag to spout of filling machine and pulls lever to start machine that fills bag to specified weight. Removes bag and places it in loading zone. Loads filled bags on handtruck and transfers them to storage area.

GOE: 03.04.01 STRENGTH: H GED: R2 M2 L2 SVP: 2 DLU: 77

599.685-090 SPRAY-MACHINE TENDER (tinware)
Tends battery of machines that spray protective coating of lacquer inside cans: Adjusts lever to center spraying nozzle in can-holding pocket. Starts machine and observes spraying process as cans revolve on holding turret. Pulls cans from discharge line and inspects coating for conformity to specifications. Stops machine and removes jammed cans manually or with tongs. Cleans excess lacquer from spray nozzle and machine, using solvent and brush. May adjust machine and spraying mechanism, using wrenches. May regulate oven temperature to ensure uniform drying. May mix lacquer spray solution, according to formula, and fill machine reservoirs.
GOE: 06.04.21 STRENGTH: L GED: R3 M2 L2 SVP: 4 DLU: 77

599.685-094 SPRAYER, MACHINE (leather mfg.) alternate titles: blackener; blacking-machine operator; spray-machine operator
Tends machine that sprays solution, such as pigment or lacquer onto leather pieces to finish leather: Places leather pieces on conveyor that carries pieces under spray to coat leather with finishing solution. Turns valves to regulate pressure of compressed air in spray tanks and flow of solution through spray nozzles. Pushes button to control movement of conveyor and moves lever to start and stop rotation of sprayer.
GOE: 06.04.21 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-098 TUBBER (jewelry-silver.)
Tends one or more tumbling machines containing steel shot, soap, and water, that clean and polish jewelry articles preparatory to further processing: Loads machine with jewelry articles. Bolts lid on machine and starts machine that tumbles and rotates articles in cleaning solution for specified length of time. Places articles in sawdust box for drying. Cleans sawdust from articles, using airhose.
GOE: 06.04.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-102 TUBE COATER (metal prod., nec)
Tends semiautomatic machine that applies paint to collapsible metal tubes, for packaging drug and toilet products, glue, and similar items: Starts machine and positions unpainted tubes on spindles of revolving transfer table that automatically carries tubes against paint rollers. Removes painted tubes and places tubes on pegs of conveyor leading to drying oven.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

599.685-106 TUMBLER (clock & watch)
Tends tumbling machine that deburrs, smooths, and burnishes watch parts: Dumps specified abrasive powder, stones, or metal balls, in machine. Starts machine that cleans and burnishes parts. Rinses tumbled parts and dips them into oil to prevent rusting. Places parts in heated centrifuge to dry.
GOE: 06.04.02 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-110 TUMBLER OPERATOR (any industry)
Tends one or more tumbling barrels that smooth, polish, and clean articles, such as castings, tools, metal parts, jewelry, or porcelain ware: Loads tumbler with parts and specified amounts of cleaning compound or abrasive materials, such as pebbles, sand, shot, and sawdust, using shovel, hand scoop, or powered hoist. May pour specified amount of liquids, such as water, benzene, or kerosene into tumbler. Bolts cover and starts machine to rotate barrel and tumble parts for specified length of time. Tips barrel to pour contents into container or unloads barrel manually. Separates parts from abrasive materials or picks out parts, using hands or magnet.
GOE: 06.04.09 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-114 WASHER, MACHINE (any industry)
Tends machine that washes flat objects, such as plate glass, plastic sheets, or metal: Places workpiece into movable bed of machine or between pinch rolls. Turns valves and observes gauges to set specified flow of water or steam from jets in machine. Starts machine that moves workpiece by action of conveyor or pinch rolls into bath tank through spray of washing water, or steam under rotating brush and through spray of rinse water. Examines workpiece and removes remaining foreign matter, using hand scraper, brush, or sponge. May measure or weigh out and pour specified quantity of soap or detergent into wash water.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-118 WASHING-MACHINE OPERATOR (any industry)
Tends machines that wash and dry manufactured articles or their components, such as rubber gloves, pen and mechanical pencil barrels and lens blanks: Dumps detergent into machine. Places objects or racks of objects in washing machine. Sets controls to regulate length of cycle and water temperature as specified. Starts washing machine. Removes objects and places them in drying machine. Starts drying machine. Removes objects from machine when dry. May tend machine that rinses articles.
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 77

599.685-122 WATER TENDER (any industry)
Tends pumps that maintain level of water in boilers: Reads boiler gauges to ascertain need for water. Opens valves and starts boiler-feed water pumps to supply water, or adjusts controls to start pumps automatically when water level reaches specified point. Observes operation of pumps to detect malfunctions. Tests water to determine suitability for boiler use or obtains sample for laboratory analysis. Adds specified chemical to condition boiler water. May clean boilers. May tend evaporator to purify water.
GOE: 05.12.06 STRENGTH: L GED: R2 M2 L2 SVP: 4 DLU: 77

599.685-126 SEED PELLETER (agriculture)
Tends equipment that applies coating to agricultural seeds and separates coated seeds according to size specifications to allow for uniform planting: Dumps seeds into rotary drum and presses buttons to start drum rotation. Adds water, powder, and glue for specified period, using spray guns and scoop and following work order specifications. Stops drum and scoops coated seeds (pellets) from drum, dumps pellets into electric sizing mill or onto manual sizing screen to remove undersized pellets. Returns undersized pellets to drums for additional coating. Dumps and spreads pellets on trays in drying tunnel for drying. Repeats sizing procedure for dried pellets to ensure that pellets meet sizing specifications. Fills pails with pellets specified on shipping order, using scoop, covers pails with lids, and places pails on pallet for shipment. Cleans interior and exterior of drums and work area, using brushes, rags, mop, detergent, and water.
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L2 SVP: 2 DLU: 86

599.685-130 PAINT STRIPPER (petrol. refin.)
Tends equipment that strips paint from steel drums preparatory to repainting: Turns valves to start flow of paint-removing solvent and steam to outlets in respective sections of cleaning equipment. Starts pump that re-circulates solvent, and conveyor that carries drums through paint stripping process. Observes drums passing through paint stripping section, and adjusts speed of conveyor to obtain maximum efficiency during stripping process. Inspects drums to determine whether additional stripping is required, and recycles drums needing more stripping.
GOE: 06.04.39 STRENGTH: H GED: R3 M1 L1 SVP: 5 DLU: 86

599.685-134 SCRUBBER MACHINE TENDER (electron. comp.)
Tends machine that scrubs, cleans, and dries surface of printed circuit board (PCB) panels during manufacturing processes: Loads PCB panels onto conveyor that carries panels through scrubbing (abrading or sanding), cleaning, and drying cycles of machine. Adjusts machine controls to regulate pressure of scrubbing mechanisms, fluid levels, and conveyor speed. Observes gauges and examines processed panels to detect machine malfunctions and conformance to processing specifications. Removes and stacks cleaned PCBs from discharge end of machine. May clean and maintain scrubbing machine. May be designated by type of panels processed as Inner-Layer Scrubber Tender (electron. comp.). May be designated according to point in production when scrubbing occurs as Final Cleaner (electron. comp.).
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L2 SVP: 2 DLU: 88

599.686-010 MILL-OPERATOR HELPER (any industry)
Performs any combination of following duties to assist MILL OPERATOR (any industry): Feeds raw materials to mill, using conveyor belt. Shovels spillage back onto belt. Breaks lumps of incoming raw material, using double jack to facilitate passage through grizzly before entry into crusher. Opens hatch and drains slurry from mill, using electric vibrator or shaking screen to sift foreign particles from slurry. Places trays of slurry in drying ovens for specified time Dumps dried slurry into drums. Moves drums to storage area, using handtruck Lubricates mill and auxiliary equipment. Washes ball mills and cleans work area. Performs other duties as described under HELPER (any industry) Maste Title.
GOE: 06.04.19 STRENGTH: M GED: R1 M1 L1 SVP: 2 DLU: 77

599.686-014 SPRAY-UNIT FEEDER (any industry) alternate titles: machine sprayer
Feeds manufactured articles or parts onto conveyor or feed mechanism tha carries them through paint dipping and spraying operations. May be designated according to coating applied as Lacquerer (button & notion); or according t article sprayed as Gunstock-Spray-Unit Feeder (ordnance); Sprayer, Light Bulb (light. fix.); or according to mechanism fed as Hook Loader (toy-sport equip.).
GOE: 06.04.21 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

599.687-010 BALLOON DIPPER (rubber goods) alternate titles: soaper
Dips balloons in vats of dye and soap solutions to color and polish them Pours specified dyes into dye box receptacles. Immerses dye spreader (handle top from which spikes protrude) in dye box and passes it over tank of runnin water to form crisscross colored pattern of swirls on water. Lifts form pan (pa of molded balloons) from curing oven and places it on tank rack with mold immersed in dye water to form varicolored swirling pattern on balloons. Transfers pan to draining rack. Dips specified form pans in soap solution to impa glossy appearance to balloons and places them on conveyor, preparatory t stripping from molds.
GOE: 06.04.27 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 77

599.687-014 BOOKER (rubber goods; rubber tire)
Places strips of rubberized fabric or rubber between layers of cloth attache to *board*, forming books, or places rubber on trays of handtruck to preve sticking together and to facilitate transportation.
GOE: 06.04.40 STRENGTH: L GED: R1 M1 L1 SVP: 1 DLU: 77

599.687-018 LEAD HANDLER (ordnance)
Performs any combination of following duties in shot tower to facilitate pr duction of small arms ammunition: Unloads lead pigs from freight car and co veys and stacks them, using electric forklift truck. Loads specified proportio of lead and antimony-lead pigs onto conveyor, using electric hoist. Opens a closes valves, using metal hook, to direct conveyor flow of scrap shot to de ignated storage bins at top of shot tower. Lights fires under lead melting kettl

and dross converter. Dumps or shovels scrap lead or dross into kettles or converter. Skims dross from molten lead, using skimming ladle. Removes dross from converter, using rake and hoe.
GOE: 06.04.40 STRENGTH: H GED: R2 M1 L1 SVP: 3 DLU: 77

599.687-022 NET WASHER (rubber goods)
Washes stainless steel electronic testing nets to remove printing ink and dust: Immerses nets in soapy water and cleans nets, using handbrush. Inspects nets for broken links or snags and sets aside defective nets. Hangs nets on rack and starts fan to dry them.
GOE: 06.04.39 STRENGTH: L GED: R1 M1 L1 SVP: 2 DLU: 77

599.687-026 SIPHON OPERATOR (medical ser.; pharmaceut.) alternate titles: laboratory assistant; pooling operator
Siphons human blood plasma into pooling bottles for processing or storage: Removes cap from donor bottle and punctures stopper with needle. Connects vacuum pump to donor and pool bottles, using sterile glass and rubber tubing. Opens vacuum valve to siphon plasma into pooling bottle. Draws off and labels sample from each pool bottle. May introduce sterile, compressed air into pool bottles to transfer plasma to individual containers.
GOE: 02.04.02 STRENGTH: L GED: R2 M1 L1 SVP: 2 DLU: 77

599.687-030 WASHER (any industry) alternate titles: cleaner
Washes metal, glass, rubber, or plastic objects: Sprays objects with sprayer nozzle or immerses objects in washing and rinsing solutions to remove debris, manually or using baskets or conveyor. Dries objects, using cloth, airhose, or drying oven. May manually dislodge debris from objects, using brush or hand held power scrubber. May fill vats with water to specified level. May pour specified quantity of soap or chemicals into water or other solutions. May be designated according to object washed as Brush Washer (textile); Tub Washer (textile); Ware Washer (pottery & porc.).
GOE: 06.04.39 STRENGTH: M GED: R2 M1 L1 SVP: 2 DLU: 88

599.687-034 DRUM CLEANER (petrol. refin.) alternate titles: drum chainer
Cleans rust, scale, and other residue from interiors of empty steel drums, using one of following methods: (1) Inserts lighted rod through bunghole of drum to inspect drum interior for rust or residue, and selects chain of length and weight required to clean drum. Threads one end of chain through bunghole into drum, secures other end of chain to drum, using wire, and positions drum on power roller device. Depresses button to start rollers that tumble drum until chain dislodges matter. (2) Inserts steam nozzle into drum, pushes control to activate steam, and shakes nozzle about inside of drum to dislodge residue with blasts of steam. Draws out loose materials, using vacuum. Dries steam condensate, using warm-air hose.
GOE: 06.04.39 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 86

599.687-038 DRUM TESTER (petrol. refin.)
Inspects empty steel drums to detect leaks, using airhose and immersion tank: Fills immersion tank to designated level, using hose. Pulls drum from conveyor and screws bung into bunghole of drum, using wrench. Presses airhose nozzle onto valve of bung to release air into drum and monitors airhose gauge to raise pressure in drum to specified level. Lifts pressurized drum into tank and depresses pedal to actuate sprocket wheel of tank assembly that forces drum under water. Observes water to detect bubbles that indicate drum leak. Returns drum to surface, marks leak with waterproof crayon, and sets drum aside for repair. Replaces bung and gasket of drums not requiring repair and pushes drums onto conveyor.
GOE: 06.03.02 STRENGTH: H GED: R2 M1 L1 SVP: 2 DLU: 86

☆ U.S. GOVERNMENT PRINTING OFFICE: 1991-295-302

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